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Monthly Cyclopedia and Medical Bulletin

(CONSOLIDATED)

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NEWS AND THERAPEUTIC HINTS.

Senile Pruritus.

℞ Acidi sulphurici dil., ♏lxxv.
Syrupi rubi idæi, f℥j.
Aquæ destillatæ, q. s. ad f℥vj.

M. Sig.: One tablespoonful every two hours. (Merck's Archives.)

Acute Gastritis.

In a paper contributed to the Virginia Medical Semi-Monthly, Hamner speaks of the control of the vomiting that persists in acute gastritis, even after emesis. He considers the washing out of the stomach with the tube to be the surest and quickest treatment, if followed with the introduction by the tube of the following antiseptic solution:—

℞ Thymol, gr. viij.
Boric acid, ℥ss.
Warm water, Oij.

Ft. solutio et sig.: One pint through stomach-tube.

The water used during lavage should be quite warm and the antiseptic should not be used until the plain water runs out perfectly clear. The antiseptic should be caught up and measured to ascertain if it approximates 1 pint; a few ounces retained will do no harm. Vomiting, as a rule, ceases entirely after this. (Medical Summary.)

Weeping Erythematous Eczema.

When occurring on the face there is usually much edema of the loose tissue in the infraorbital region, so the condition may be mistaken for erysipelas. Avoid greasy applications and use wet dressings soaked in normal saline. The following lotion will relieve the irritation and smarting:—

℞ Calaminæ, ℥ij.
Zinci oxidi, ℥j.
Glycerini, f℥ss.
Liquoris calcis, q. s. ad f℥vj.

M. et ft. lotio.

When the exudation has ceased one may use a powder of the oleopalmitate of zinc, mixed with one-half its weight of powdered starch, or the following cream:—

℞ Zinci oxidi, ℥j.
Adipis lanæ, ℥ij.
Olei olivæ,
Liq. calcis, āā partes æquales ad f℥iv.

M. et ft. cremor. (Canadian Lancet.)

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NEWS AND THERAPEUTIC HINTS.

Small-pox.

To prevent pitting in small-pox keep the body covered with the following ointment:—

℞ Salicylic acid, gr. xij.
Starch, ℥ij.
Vaselin, ℥v.

M. et ft. ungt.

This is both emollient and antiseptic.

To control itching of small-pox, C. F. Howe, of Atchison, Kan., claims that a slippery elm poultice applied to the face while in the vesicular stage will not only abort the pustule, but prevent the pitting. The poultice must not be used until the vesicles have been formed. (Med. Summary.)

New Method of Percussion.

A microphone is held before the open mouth of the patient and is connected by means of rubber tubes with the ears of the physician. The latter then percusses gently the various portions of the thorax and can make out accurately the slightest changes in resonance. (Sokolow, in Med. Klinik.)

Management of Mucous Colic.

W. A. Edwards notes that Mummery uses belladonna to prevent spasm of the colon, in the following:—

℞ Tincture of hyoscyamus, f℥ss.
Tincture of belladonna, ♏vj.
Sodium bicarbonate, gr. xx.
Tincture of ginger, ♏xv.
Spirit of chloroform, ♏xx.
Peppermint water, q. s. ad f℥j.

This dose should be given three times daily. A laxative should be administered at the same time. (Med. Rec.)

Depilating Folliculitis.

G. T. Jackson and C. W. McMurtry state that Brocq advises epilation of all loose hair and the application of either mercury or sulphur, the latter usually being the more useful. The scalp is to be washed with soap and water in the evening, and when dried the following solution should be applied:—

℞ Acetic acid crystals, gr. lxxv.
Corrosive sublimate, gr. viiss.
Glycerin, f℥vj.
Alcohol (85 per cent.), f℥iiss.
Distilled water, f℥v. (Med. Rec.)

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NEWS AND THERAPEUTIC HINTS.

Laxative Powder.

℞ Rhei pulveris, ʒj (30 Gm.).
Sodii sulphatis exsiccati, ʒss (15 Gm.).
Sodii bicarbonatis, gr. lxxv (5 Gm.).
Olei menthæ piperitæ, gtt. x.
M. Sig.: One teaspoonful in a tumblerful of water at night. (Leube, in Paris médical.)

Test for Empyema of the Frontal Sinus.

The patient is taken into a darkened room and a small electric torch held under the supraorbital margin, with its light directed upward. If the frontal sinus is normal, the frontal region just above the orbit is seen to be translucent; if there is empyema of the frontal sinus, no such translucency can be elicited. This is a convenient test for the general practitioner and will often clear up the nature of an obscure frontal headache. (Sarbo, in Med. Klin.)

Management of Acute Bronchitis in Children.

Sutherland states that, if in the early stages, as often happens, there is a dry, irritating cough, the indication of increasing bronchial secretion by the inhalation of steam may give great relief. If there is dyspnea for bronchial spasm hot fomentations to the back and front of the chest are indicated. In mild cases of bronchitis no other treatment is necessary than to apply to the chest some stimulating liniment. In more pronounced cases the bowels should be freely opened at the outset of the attack and a simple febrifuge mixture should be ordered, such as the following:—

℞ Potassium citrate, gr. v.
Tincture of orange, ♏v.
Solution of ammon. acet., ♏xv.
Camphor water, q. s. ad f3j.

As regards cough mixtures, it is pointed out that these tend to upset the digestion. If bronchial secretion is defective and there is a harsh, irritating cough, iodide of potassium and carbonate of ammonium may be given in doses of 2 grains each. If bronchial secretion is overabundant the following may be given:—

℞ Tincture of belladonna, ♏iv.
Dilute nitrohydrochloric acid, ♏iij.
Glycerin, ♏x.
Comp. infusion of gentian, q. s. ad f3j.

If special sedatives seem called for, a convenient form of administration in children is the use of pastilles containing 1/50 grain of codeine. In the convalescent stage codliver oil and hypophosphites give the best results. (Pediatrics.)

Glyco-Thymoline is of benefit for teething babies; a little rubbed on the gums, rapidly reduces the inflammation and conserves the little one's comfort.

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NEWS AND THERAPEUTIC HINTS.

Quinine Glycerate Lotion.

Quinine can be used locally for general systemic effect by combining it with glycerin as follows:—

℞ Quinine bisulphate, ʒj.
Glycerin, q. s. ad fʒiv.

Mix in hot-water bath. When it dissolves it will never separate. (Jour. of Ther. and Dietetics.)

Development of Speech.

This is a subject that has been occupying the attention of anthropologists, but it has very practical bearings in psychiatry. We have long been of the opinion that articulate speech was a very late phenomenon. Man had to develop a big brain to survive in that awful period of stress in the increasing cold of pliocene time which culminated in the glacial period. It has generally been assumed that he did not need speech until later, when it was evolved by ordinary selection of those who could communicate with each other that way and do better teamwork, in hunting the mammoth for instance. Woodward, of the Kensington Museum, concluded that the early skulls showed that articulate speech was not yet possible, but Keith concluded that the speech centers in the brain did exist in the pliocene brain a million or more years ago. There may not have been more than a hundred words or so, but that may have been enough for their primitive needs. Since then the parts have undergone enormous evolution in complexity as the language itself developed. In certain diseases deterioration attacks the mental faculties in the inverse order of their evolution, and it is, therefore, not surprising that some speech is left in very late stages of dementia. A study of this fading of speech will surely reveal evidence of the manner of its evolution as also seen in its development, since children epitomize adult stages. Mere babies talk long before the brain has reached nine-tenths of its adult size. Keith is right. Perhaps man's evolution was impossible without co-operation of his fellows in groups, and he must have been able to communicate ideas orally even in the prehuman stage. All gregarious animals do it. The missing links were probably possessed of real spoken language. (Amer. Med.)

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NEWS AND THERAPEUTIC HINTS.

Iritis.

In cases of severe iritis of a few days' standing, with a narrow pupil, the following often succeeds even in breaking up posterior synechia very rapidly, aided by salicylates:—

℞ Scopolamine hydrobromide, 0.06 Gm.
Atropine sulphate, 0.3 Gm.
Cocaine hydrochloride, 0.6 Gm.
Distilled water, 30 c.c.

M. Sig.: Drop into eye every one to three hours. (Lancet-Clinic.)

New Solution of Iodine.

Giovanni Zanetti has found that benzol is an excellent solvent for iodine, and furnishes a preparation that is quite efficacious for surgical antisepsis. A 10 per cent. solution of iodine in benzol is called by the author "iodobenzol." This solution penetrates the skin with greater ease than does tincture of iodine. The advantages of the benzol solution are, in addition, the facts that it contains a high percentage of iodine, that it has a marked stability, and that it is much cheaper than the alcoholic solution of iodine, that is commonly used for surgical purposes. (Il Policlinico.)

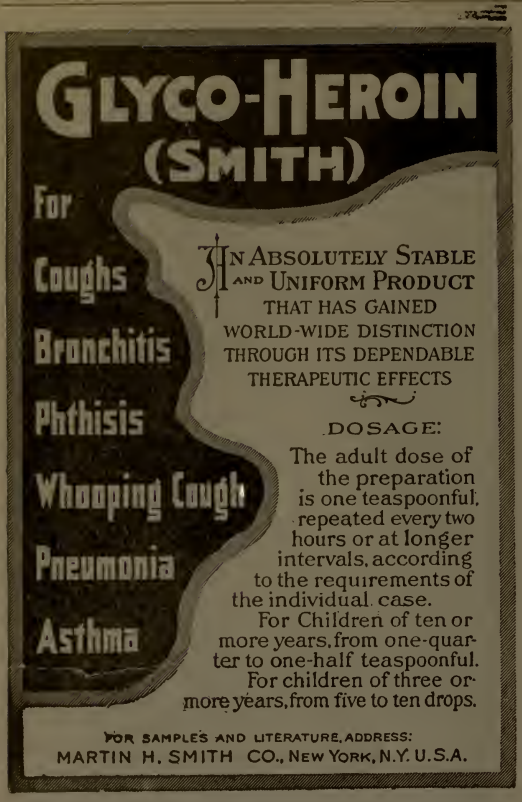
Flatulence.

When flatulence is a part of the vicious circle in so-called neurasthenia, nerve sedatives are in order. Many an attack of extrasystole and tachycardia will be averted if proper attention is paid to the prevention of the flatulence. The association of excessive gas formation and attacks of reflex cardiac neuroses in neurasthenic patients has led many physicians severely to restrict the diet in such cases. This restriction has a tendency to perpetuate the condition, inasmuch as the resultant malnutrition lowers the digestive powers. Many patients respond readily to forced nutrition, especially if the carbohydrates with ingesta are given in reduced quantities. Bromides, valerian, and charcoal should be given. The following combination is often efficacious:—

℞ Sodii bromidi,
Strontii bromidi, āā 0.5.
Carbonis ligni, 0.3.
Essentiæ zingiberis, 1.5.
Aquæ cinnamomis, q. s. ad 5.

M. Sig.: One dose; take directly after meals.

When hyperchlorhydria exists together with gastric flatulence, alkalies should be administered and an excess of meats avoided, since the proteins, though combining with the hydrochloric acid, have the tendency to call forth a further outpouring of free hydrochloric acid. (Stern and Sachs, in N. Y. Med. Jour.)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(SMITH)
For
Coughs
Bronchitis
Phthisis
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AN ABSOLUTELY STABLE AND UNIFORM PRODUCT THAT HAS GAINED WORLD-WIDE DISTINCTION THROUGH ITS DEPENDABLE THERAPEUTIC EFFECTS
DOSAGE:
The adult dose of the preparation is one teaspoonful, repeated every two hours or at longer intervals, according to the requirements of the individual case.
For Children of ten or more years, from one-quarter to one-half teaspoonful.
For children of three or more years, from five to ten drops.
FOR SAMPLES AND LITERATURE, ADDRESS:
MARTIN H. SMITH CO., NEW YORK, N.Y. U.S.A.

NEWS AND THERAPEUTIC HINTS.

Burns.

First degree:—

℞ Zinci oxidi, gr. lxxv (5 Gm.).
Magnesii carbonatis, ʒiiss (10 Gm.).
Ichthyolis, gr. xv to xxx (1 to 2 Gm.).

M. Sig.: To be dusted over the burn.

Second degree:—

℞ Zinci oxidi, gr. lxxv (5 Gm.).
Cretæ præparatæ,
Amyli,
Olei lini,
Liquoris calcis, āā ʒiiss (10 Gm.).
Ichthyolis, gr. xv to xlv (1 to 3 Gm.).

M. Sig.: To be applied to the burned area. (Leistikow, in Quinzaine thérapeutique.)

Senses of Taste and Smell.

If asked to make a distinction between the sense of taste and that of smell, most of us would probably say that, besides differences in the organs with which these manifestations are concerned, the stimuli which call their respective sensations into existence are unlike. It has generally been assumed and taught that taste is excited by substances in the state of solution and that smell is called forth by products in a gaseous or vaporous condition. This view, however, has not remained unchallenged. It has been contended by a number of physiologists that solutions may act as stimuli for the olfactory surfaces and some have gone so far as to assert that in normal functioning of the sense of smell in man the odorous particles are caught on the moist olfactory surfaces and dissolved before they can act on the nerve-terminals.

The problem of these possible distinctions in the two senses has been taken up in an experimental way by G. H. Parker and Miss Stabler. Selecting as a stimulus a substance—ethyl alcohol—which has both a characteristic odor and a well-marked taste, they have made some comparisons which lead them to conclude that in vertebrates the stimulus for smell is a substance dissolved in the fluids that bathe the olfactory surface, and that in this respect smell and taste are similar. The difficulty in imitating a normal stimulation of the olfactory organs by solutions experimentally introduced into the nose is due, in the opinion of Parker and Stabler, to the inability of the investigator to reproduce the olfactory solvent. This material, the slimy covering of the olfactory surface, is very different from water or even warmed physiologic salt solution. Hence it is not surprising that odorous substances dissolved in these mediums should not act as normal stimuli for the olfactory surfaces. Were it possible to imitate closely the olfactory solvent there might be no difficulty in stimulating the olfactory organs with solutions made up in this solvent.

Both smell and taste are, then, stimulated by solutions, but water introduced into the human nose will cause a temporary loss of the power of smell. Hence the olfactory organs are not appropriately stimulated by ordinary aqueous solutions. Besides the possible different chemical nature of the stimuli, that for the sense of taste is a relatively strong solution, that for smell a relatively weak one. The bearing of these facts has been summarized by saying that we smell enormously attenuated solutions and taste only relatively strong ones. Taste is used in determining the presence of comparatively large amounts of substance, smell for only the most minute quantities. Hence taste is inoperative except when the source is very near at hand, usually in the mouth; whereas smell may be active when the source is far distant, the dilution experienced by the stimulating substance in its spread not having been sufficient to bring it below the concentration necessary for stimulation.

(Jour. A. M. A.)

Concerning Medicinal Malt Preparations

The manufacture of malt preparations for medicinal use is a highly specialized professional work, and is successfully accomplished only under the direction of competent chemists. While in some respect similar to the brewing of beer, there are vital differences both in the materials which enter into these products and the processes of manufacture.

ANHEUSER-BUSCH'S

Malt-Nutrine

TRADE MARK.

The Food Tonic

is the recognized standard of medicinal malt preparations of its class. The materials used in its manufacture are specially selected and safeguarded. Only the choicest Barley malt and Saazer hops are used, and the finished product contains all of the soluble substances of these two materials.

Malt Nutrine is a perfect malt preparation, and should not be confused with cheap dark beers, many of which are represented to be medicinal malt products.

Pronounced by the U. S. Internal Revenue Department a

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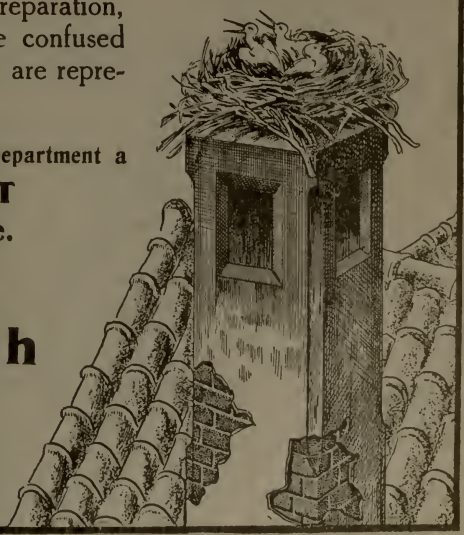

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A Vitalizing Tonic to the Reproductive System.

Specially Valuable in Prostatic Troubles of Old Men—Irritable Bladder—Cystitis—Urethritis—Pre-Senility.

SOOTHING — RELIEVING — RESTORING.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

Beware of the so called Elixir Compounds claiming to be "the same thing" or "just as good" if you do not wish to be disappointed.

NEWS AND THERAPEUTIC HINTS.

Buzzing in the Ears.

According to S. Weissenberg, atropine is beneficial in many cases of buzzing in the ears without recognizable cause. The following prescription is employed:—

℞ Sol. atropin. sulph., 0.01 : 15.

Sig.: Ten to 15 drops three times a day. (Critic and Guide.)

Painful Heel.

Painful heel is frequently due to an exostosis, a spur, on the bottom of the calcaneum. In cases of long-standing rebellious pain under the heel, it is wise to radiograph in order to see where this lesion is present. While we sometimes find this condition in patients complaining of no pain under the heel, it has been pretty well demonstrated that removal of these spurs when present in "painful heel" is followed by abatement of symptoms. Before, however, such spurs are removed, the attempt should be made to take pressure off them by means of well-fitting arches, felt rings, or other devices designed to take weight off the painful heel. (E. S. Geist, in The Saint Paul Medical Journal.)

Noise as an Etiologic Factor.

Noise and neurasthenia are being connected as cause and effect in Paris, and several members of the Academy of Sciences are discussing the matter seriously with the view of abating the nuisance and advising everyone who can to run away from it if it cannot be diminished to endurable limits. The antinoise crusade has been carried on largely for the benefit of people who have been made neurasthenic from other causes. They are exquisitely sensitive to noises which the normal ignore. To them the sounds are real traumata, which have the same effect on nerve-cells as any other mechanical injury. Recovery may not only be prevented in noisy surroundings, but the disease made actually worse. The new idea is that healthy people suffer the same traumatism, and, though they have strength enough to ignore it, the effects accumulate and finally make themselves felt to even the most stolid. Many have said all this before, but no one has attempted to give specific instances until Edmond Perrier, director of the Paris Museum of Natural History, accused the habitual noises of being the cause of the neurasthenia so common among traveling mail clerks, printers, typesetters, and typewriters. This is an unfortunate illustration, for the nerve-strain of forced attention when fatigued and working in hot rooms is fully competent to account for the exhaustions. If an eye-strain exists, and it generally does, the results come on more quickly, of course. Barbers, who are not troubled by great noises, are badly affected, while boilermakers do not figure so largely in it at all. We are afraid that Perrier has not made out his case. Nevertheless, the damage of noise seems appreciable, and it is likely we will be able to show it statistically in time. The antinoise crusade is a worthy one, and we hope it will not die of inanition, but be revivified to the end of abating all the unnecessary sounds which now jar our tingling nerves. Tugboat captains declare that they could not get along unless they used their whistles for about everything, including the calling of the crew from a saloon, but they were wrong, and have become fairly decent in preference to going to jail. It is time to stop other street cries and unnecessary noises, so that a needed signal of danger may be low enough to attract attention and yet be unirritating. (American Medicine.)

THE

VEXATIONS OF VACCINATION—

perhaps the **most** "vexatious" of which is the **excessively** sore arm, from some mixed infection or dyscrasia—quickly come under control and soon disappear when

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In ANY form of DEVITALIZATION
prescribe
Pepto-Mangan (Gude)
Especially useful in
ANEMIA of All Varieties:
CHLOROSIS: AMENORRHEA:
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TUBERCULOSIS: RICKETS:
RHEUMATISM: MALARIA:
MALNUTRITION: CONVALESCENCE:
As a GENERAL SYSTEMIC TONIC
After LA GRIPPE, TYPHOID, Etc.
DOSE: One tablespoonful after each meal.
Children in proportion.

Supplied in 11-ounce bottles only—never in bulk.
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Prescribe original bottle to avoid substitution.

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Our Bacteriological Wall Chart or our Differential Diagnosis Chart will be sent to any Physician upon request.

NEWS AND THERAPEUTIC HINTS.

Hives or Urticaria.

℞ Sodii salicylatis, gr. iij.
Bal. copaib., gtt. xij.
Alcoholis, f℥ij.
Elixir simp., q. s. ad f℥iv.

M. Sig.: Teaspoonful every hour until relief is obtained. (Walker, in Med. Summary.)

Itching in Gall-stones.

To relieve the itching caused by the deposit of pigment in the skin the hot pack on alternate days, or even every day, is serviceable. A very efficient local application for this purpose is the following, which should be applied with a sponge and allowed to dry on the skin.

℞ Acidi carbolici, ♏viiss.
Glycerini, f℥ij.
Aquæ, f℥vj. (Fussell, in Merck's Archives.)

Marvels of Ultraviolet Radiation.

The English novelist, Wells, in his "War of the Worlds," describes the invasion of the earth by armless, legless, tentacled, and megalocephalic Martians, who destroy men, houses, forests, and fields by directing upon them fluorescent green rays, that ignite and consume everything that they touch.

Radiations as remarkable and almost as destructive as these imaginary Martian rays have been studied in physical laboratories in recent years. These are the ultraviolet rays, which exist in sunlight, and which are produced abundantly by the quartz mercury vapor lamp.

Prof. Daniel Berthelot, of the École Supérieure de Pharmaciè, who has made a profound study of these rays, said recently to the writer:

"The ultraviolet rays are the most rapid ethereal radiations that we are able to produce. This quartz lamp emits rays that vibrate 750 trillion times in a second. This prodigious number exceeds our powers of comprehension. Our eyes are blind to these too rapid vibrations as our ears are deaf to sounds too high in pitch. Yet, these invisible rays, which are detected by the photographic plate and perhaps by the eye of the ant, exert disastrous action on higher organisms, and especially on man."

The skin exposed to ultraviolet radiation reddens, inflames, and peels. These are the effects

NEWS AND THERAPEUTIC HINTS.

of sunburn, and sunburn is explained by the abundance of ultraviolet radiations in the sun's rays.

"But the eyesight is most greatly menaced by exposure to ultraviolet rays, which in a few seconds produce painful conjunctivitis and ophthalmia. An exposure of three or four minutes may cause total blindness."

This peculiar property of ultraviolet rays may be utilized in future wars. In the recent war in Thrace many nocturnal attacks were made by Bulgarian troops armed with acetylene torches, the dazzling light of which blinded the enemy and made defense impossible. The invisible ultraviolet rays can be filtered from the green light of the mercury vapor lamp by a screen of suitable material and color, and it would be easy to devise apparatus which would emit a flood of these invisible destructive rays that would actually blind the enemy.

But these rays have other wonderful properties that suggest more peaceful applications.

"The ultraviolet rays," Prof. Berthelot continued, "make foodstuffs out of the gases of the atmosphere. Under the influence of these rays carbon dioxide and water vapor combine to form sugar and other carbohydrates. Hence, it is not too rash to look forward to the synthesis of certain foodstuffs. Theoretically, we may foresee the replacement of some of our fields of grain and sugar beets by factories in which food will be produced from the atmosphere by the agency of ultraviolet rays. The engineer, the physicist, and the chemist will then take the place of the farmer.

"At present a kilogramme of sugar could not be produced in this way for sixty or seventy centimes. It would cost several thousand francs. But it cost Sainte-Claire Deville, the discoverer of aluminum, several hundred francs to produce a kilogramme of the metal, while pure aluminum is now worth less than two francs per kilogramme.

"Science moves so quickly nowadays that the partial realization of the synthesis of foodstuffs is perhaps less distant than some persons think.

"The ultraviolet rays have also made entrance into the realm of the ferments, those mysterious leavens on which some of the oldest and most important of human industries are based. I have inclosed foodstuffs—sugar, butter, and fats—in sealed vessels of quartz, and have effected their digestion by the action of ultraviolet rays, without the aid of any ferment.

"It seems to me that I have here touched one of the mysterious secrets of life. Food is digested by the action of the saliva, the gastric and intestinal juices, etc., which contain ferments or diastases that decompose the foodstuffs into substances that the body can assimilate. I have digested, artificially, by the agency of the ultraviolet rays, foodstuffs of the three great classes, carbohydrates, fats, and albuminoids, inclosed in globes of quartz.

"Perhaps the therapy of the future will make use of internal light baths, and dyspepsia will be treated by introducing into the stomach, instead of capsules of pepsin, tiny lamps that emit ultraviolet rays." (Richard Arapu, in Scientific American.)

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Physiologically standardized Ergot, Digitalis etc., in sealed glass ampoules *from which the air has been exhausted.* Activity retained permanently. 16-32 minims and 1 fl. oz. sizes.

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and without detriment to the patient. The employment of PASADYNE (Daniel) for this purpose permits dispensing with the heart depressants so often used. RELIABLE—WITHOUT HABIT—SAFE.
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Laboratory of JOHN B. DANIEL, Atlanta, Ga.

NEWS AND THERAPEUTIC HINTS.

Cancer of Esophagus.

For the dysphagia in cancer of the esophagus, Sée recommends the following:—

℞ Dioninæ,
Codeinæ hydrochloridi, āā gr. iss.
Cocainæ hydrochloridi, gr. iv.
Ammonii valeratis,
Aquæ amygdalæ, āā f℥ij.

M. Sig.: Of this solution, 15 drops should be taken three or four times a day. (Revue de thérapeutique.)

Oral Antisepsis and Analgesia.

The use of a glassful of water to which 20 to 25 drops of fresh tincture of iodine have been added, once daily, preferably at bedtime, is claimed to be the best means of procuring oral antisepsis under ordinary circumstances.

The following powder is very useful for relieving pain in the mouth and alleviating inflammation of the gums and peridental tissues:—

℞ Stovaine, gr. ⅘ (0.05 Gm.).
Powdered sugar, ℥iiss (10 Gm.).
Divide into 12 powders.
Sig.: Expectorate after using.

Management of Mental Disturbance Prior to Commitment.

G. T. Faris, discussing this question in the Therapeutic Gazette, points out that rest in bed is a valuable measure during the time which intervenes between the onset of excitement and the time the patient is taken to a hospital. To procure such rest it is usually advisable to resort to sedatives, one of the best being hyoscine hydrobromide in doses of from 1/100 to 1/50 grain (0.0006 to 0.0012 Gm.) hypodermically. In extreme cases with intense motor excitement, morphine sulphate in doses of 1/6 to 1/4 grain (0.01 to 0.015 Gm.) may be added. This usually quiets the patient during the time required in preparation for a pack.

In most instances, Faris believes, the hot, wet pack has a greater sedative effect than the cold pack. In applying the former a dry blanket is spread on the bed and the patient placed thereon. A sheet wrung out of hot water so that it does not drip is then quickly wrapped around one leg, up to the pelvis; a second sheet encloses the other leg, and a third surrounds the trunk; a blanket is wrapped snugly about, and reinforced by a second and third, if necessary. This form of pack has the advantage of permitting quick access to the rectum when an enema is deemed necessary or the rectal temperature is to be taken, without unduly exposing the patient. An ice-cap or Turkish towel wrung out in ice-water should be applied to the head and frequently changed. The patient is usually glad to take several glasses of cold water, and this is an advisable measure.

The pulse and temperature should be watched; and if no untoward symptoms develop, the patient may be left in the pack from one to six hours. Upon its removal, care to avoid rapid cooling is necessary; the patient should be wrapped in warm, dry blankets. The pack may be repeated as often as required.

It is of the utmost importance that a large quantity of easily digested food be administered to these patients. Milk, raw eggs, and animal broths, together with plenty of water, should be given beside the regular meals. If the patient refuses to eat, time for hunger to assert itself should be allowed to elapse before artificial feeding is resorted to. Frequently, when these patients awake from sleep, they will take several glassfuls of nourishing fluids, though at all other times refusing to do so. Artificial feeding is best accomplished through a nasal tube. (N. Y. Med. Jour.)

Hepatic Engorgement

--and derangements of the portal circulation in general --- can be quickly relieved by

Chionia

Years of experience have shown that this standard preparation of Chionanthus Virginica has no superior as a hepatic stimulant and tonic, for unlike other cholagogues it increases hepatic functions without producing catharsis. Its field of utility is broadened accordingly.

Sleeplessness

depending on nervous excitation, reflex conditions, vasomotor disturbances or the various neuroses --- is especially amenable to the bromides in the form of

Peacock's Bromides

This is due, not alone to the purity and quality of the several salts entering into the composition of this product, but also to their particular combination which assures maximum therapeutic action with minimum untoward effect.

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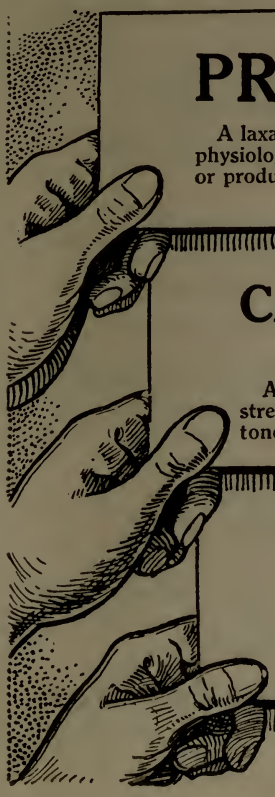

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A laxative that acts by stimulating physiologic processes; does not gripe or produce after-constipation.

Remarkably effective in the treatment of **chronic constipation** and all intestinal conditions requiring safe, pleasant and dependable action.

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A remedy that steadies and strengthens the heart by imparting tone to the heart muscle.

Invaluable in all functional cardiac disorders such as **tachycardia, palpitation, arrhythmia** and **whenever the heart's action needs regulating or supporting.**

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A true secernent that stimulates the flow of the digestive fluids, thus aiding and promoting digestion.

Used in **atonic indigestion, alcoholic gastritis** and **dyspeptic conditions generally** with results both prompt and lasting.

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A Supplementary Volume Free.

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NEWS AND THERAPEUTIC HINTS.

Application for Warts.

℞ Chloral,
Acetic acid, of each, ʒiss.
Salicylic acid,
Ether, of each, fʒj.
Collodion, fʒss. (Critic and Guide.)

Malaria.

Broadnax acid iron tonic will give good results if used locally. If desired quinine sulphate could be added to the Broadnax acid iron tonic and so used locally for general systemic effect of all the ingredients. The following prescription is reliable in malaria:—

℞ Quinine sulphate, ʒss.
Iron sulphate, ʒij.
Magnesium sulphate, ʒiv.
Sulphuric acid, ʒiv.
Aquæ, q. s. ad fʒxxxij.

Sig.: Tablespoonful three times a day.

I believe the above could be diluted and used externally for general systemic effect. It is so bad that but few will take it by the mouth. These are not too large for bad cases. (J. A. Burnett, in Jour. of Ther. and Dietetics.)

PAIN

--- however severe or wherever located --- can be quickly and satisfactorily controlled by

PHENALGIN

Prompt and efficient in action, this dependable analgesic not only affords the anodyne effect desired, but without deranging digestion, locking up the secretions, producing constipation, or inducing a drug habit.

Thus it is that Phenalgin has supplanted opium and its derivatives for the relief of **Headache, Rheumatism, Gout, La Grippe, Lumbago, Neuralgia, Disorders of the Female and painful conditions generally.**

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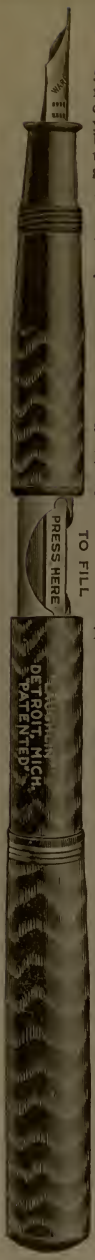

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To relieve you of its discomforts we will allow 50 for it in exchange. Send it to us by ordinary mail **at our risk,** and under separate cover, bank draft or money order for $2.00 and we will send you the $2.50 pen described below; a pen that will be a source of never-ending usefulness and pleasure to you; that will do your bidding if you but guide it aright over the writing sheet.

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Automatic—Non-Leakable

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You don't have to fuss and shake a Laughlin to start the ink—**It's a Self-Starter.**

You don't have to fill the Laughlin—**It's a Self-Filler.**

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You don't have to monkey with dangerous, awkward or unsightly locks, extensions, or so-called Safety devices—**There are none.**

You can't forget to seal a Laughlin against leaking, it seals itself air-tight **Automatically.**

You can't lose your cap from a Laughlin—it secures itself **Automatically.**

You can't break your cap or holder on a Laughlin—**They are non-breakable.**

Holder and cap of scientific, reinforced construction throughout. **(See Illustration.)**

You don't have to wait until a Laughlin is ready. It is ready to write when you are: the air-tight leak-proof construction keeps pen and feed "primed," insuring a free uniform flow of ink instantly—even though not previously used for a year.

It performs these functions with no more hindrance or interruption to your thoughts or writing inspiration than your breathing.

These results—or your money back.

These features are peculiar only to this patented construction.

$2.50 **By insured mail, prepaid to any address.**

If you have no old back number dropper filler pen to send us in exchange, just enclose $2.50 with this coupon, containing your name and address; we will send the pen by return mail. *Delivery Guaranteed.*

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Gentlemen—Here is $2.50. Send me the pen described in this advertisement. If pen is not satisfactory, you refund the money.

Name .....

City..... State.....

NEWS AND THERAPEUTIC HINTS.

Hypertrophy of Tonsils.

℞ Iodi pur., gr. j.
Potassii iodidi, gr. ij.
Tinct. opii, ♏xx.
Glycerini, f℥iv.

M. Sig.: Paint the tonsils morning and evening, and use as a gargle a teaspoonful to a glass of warm water. (Moure, in Med. Fortnightly.)

Removing Odor of Kerosene.

A splendid method to mask the odor of kerosene or gasoline is to throw a lump of ammonium carbonate into the containers of the aforesaid malodorous liquids and keep it there. Try it; it works wonders. (Druggist Circular.)

Ingrowing Toe-nail.

Good results in the treatment of ingrowing toe-nail may be obtained by dusting the affected part with a little powdered lead nitrate, after careful cleansing. A white scab forms, which must be removed on the following day; otherwise, pus is liable to collect underneath, the dusting being then repeated. The same treatment is followed from day to day as long as necessary. Liesching has been using this method for many years, with satisfactory results. (Merck's Archives.)

Contraindications to Narcosis.

Patients with mitral lesions, in general, bear narcosis well; those with lesions of the aortic valves or of the aorta, poorly, especially if the heart muscle itself is weakened or diseased. In determining the advisability of giving a general anesthetic, a functional test of the sufficiency of the cardiac muscle would be most valuable. Practically, however, this is not an easy matter. If the patient is able to climb three flights of stairs without undue dyspnea, the heart muscle may be considered normally strong. Less than this, however, usually suffices to render a general anesthetic permissible. The blood-pressure is not a useful indicator, since patients with a pressure of less than 60 mm. or more than 200 mm. often bear the anesthetic well. The same is true of both large and small hearts, determined radioscopically.

The most useful test, according to the author, is a respiratory one. A normal individual can easily hold his breath for thirty to forty seconds; one with an impaired myocardium only ten to twenty seconds. The test is done as follows: The patient sits comfortably in a chair and makes a moderately deep inspiration. The physician lightly compresses his nostrils and directs him to hold his breath as long as possible. Anyone with a normal myocardium can comfortably hold his breath for thirty seconds and then breathes easily; if the myocardium is impaired, twenty seconds is his limit and is followed by dyspnea. Even patients with tuberculosis, bronchitis, or pleuritic effusions can still hold their breath for twenty-five to thirty seconds. The writer concludes that no one who is unable to hold his breath for twenty seconds should be subjected to a general anesthetic. (Stange, in Berl. klin. Woch.)

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1914-1916 CHERRY STREET PHILADELPHIA, PA.

NEWS AND THERAPEUTIC HINTS.

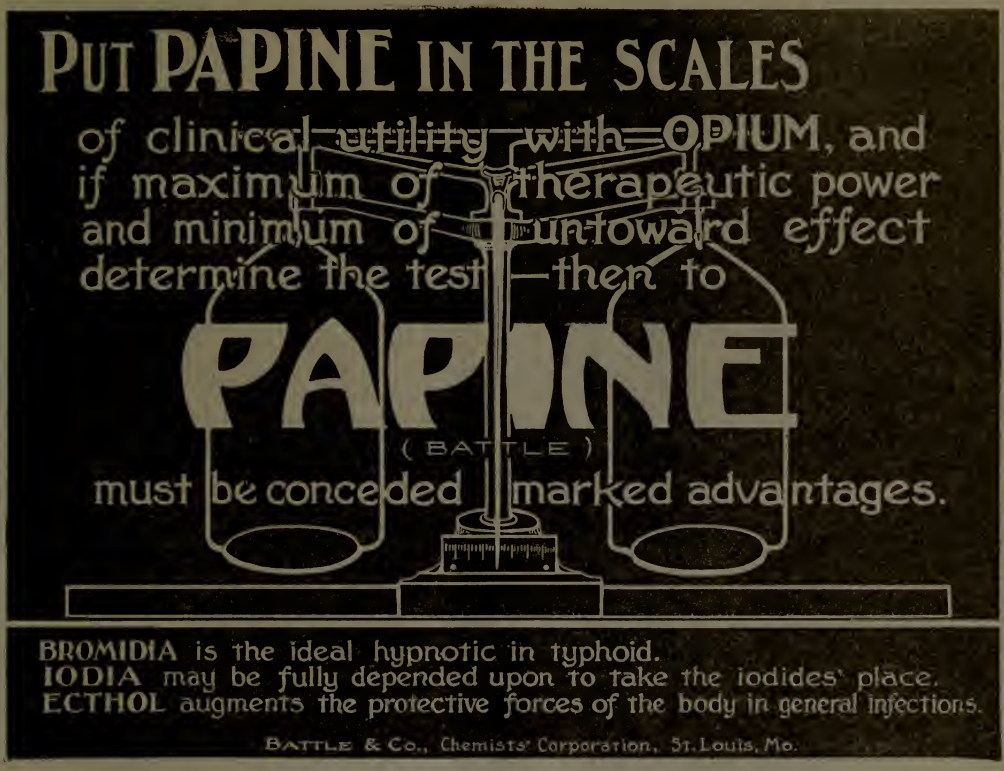
Pruritus Ani.

Nocturnal pruritus ani is often prevented, even cured, by inserting a fair-sized hard-rubber or metal dilator into the anus for about fifteen minutes at bedtime. (Amer. Jour. of Surg.)

History of Spectacles.

Some time ago Greeff, of Berlin, described the earliest known pair of spectacles, those belonging to Willibald Pirkheimer in the Wartburg; more recently the same author has described a still earlier pair, probably made before the year 1500, which were brought to his attention by Sudhoff, of Leipsic. These were found in an old volume of incunabula by the well-known antiquarian bookseller, Jacques Rosenthal, and were presented by him to the Germanic National Museum at Nuremberg, where they are now to be seen in the sections devoted to costumes and personal ornaments. The frame is of tanned blackened leather, of obvious Nuremberg make, like the Pirkheimer spectacles, of the old traditional "nose-rider" shape, but they are clumsier and thicker than the Pirkheimer pattern of 1520-1530. The lenses are lacking. In view of these characteristics and of the fact that they were found in an old fifteenth-century folio, Greeff and Sudhoff seem to have no doubt that they were made before 1500.

Greeff also traces the evolution of the true modern spectacles from the old nose-riders (the originals of the pince-nez), and describes the binocles or *Scheerenbrillen* which came into fashion in 1796, consisting of two lenses mounted on a scissor-shaped handle, the originals of the modern lorgnette. The earliest form of the true spectacle glasses was invented and introduced by Monsieur Thomin, *marchand miroitier lunettier* of Paris, and were essentially "temple spectacles" (*lunettes à tempes*), the shanks extending no further than the temples. There were two kinds, one with a small end-platelet, which was represented in a portrait by Pelham, an English painter of the eighteenth century, of which a copper plate was made by J. Clark; the other, which is to be seen in Graff's portrait of Chodowiecki (1795), with a characteristic large circular fastener at the end of the shank, which held the spectacles against the temple. The next stage was that of the "ear spectacles," which at first had crude, heavy, clumsy shanks, jointed at the end, like those in the Beethoven house at Bonn, which were further improved by slitting the ends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NEWS AND THERAPEUTIC HINTS.

or by means of an olive-shaped fastener. The next improvement, consisting of a jointed appendage to the shank which passed underneath the occiput, was made in 1752 by the London optician J. Ayscough. A later variant of this joint passed downward and backward underneath the ear. Still another variety of this joint was so arranged that it could be bent suboccipitally, as in the first instance, but otherwise bent back *in extenso* when the glasses were not in use. These were called extension-spectacles (*Ausziehbrillen*). Up to the beginning of the eighteenth century the lenses were still very large and round; but after that time they began to be octagonal, square, rectangular, and finally oval. About the same time the bridge began to change in shape, first assuming the form of a K placed sidewise.

The origin of the present fashion of large circular lenses set in delicate tortoise-shell mounts is a pastel portrait of the painter Chardin in the Louvre, executed by himself in 1760, the spectacles in which were copied with great success by recent French opticians and are known in Paris as Chardin spectacles. The same type is familiar to us in the well-known portrait of Benjamin Franklin. Four or five years ago, says Greeff, a young woman or lady of fashion would have been horrified at the notion of wearing spectacles of such an unsightly type. Today she would regard it as not only chic, but the height of elegance. Plenty of people in America are inclined, no doubt, to revive the traditions of "Old Ben Franklin's days" for similar reasons, although the optical advantages and the comfort of these large lenses are obvious. (Jour. A. M. A.)

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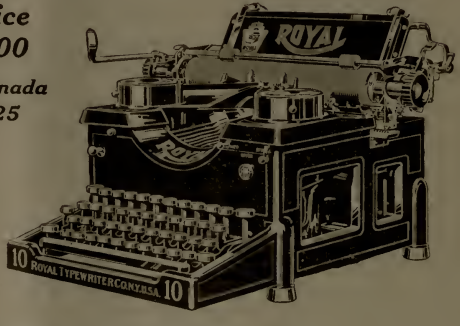

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NEWS AND THERAPEUTIC HINTS.

Chronic Purulent Otitis Media.

℞ Resorcin, gr. xx.
Tinct. opii, gtt. xv.
Aq. destil., f℥ij.
M. Sig.: A few drops to be introduced into the ear. (Med. Sentinel.)

Alopecia.

Dr. J. Guthrie, in the Practitioner, asserts that thorough treatment of the early stage of dry scaliness in this condition will often prevent the onset of baldness, otherwise certain to occur some years later. In male patients the scalp should be washed daily, in the female less often. Definite directions must be given as to how this is to be carried out. The scalp should be first wet with lukewarm water, then rubbed with a handful of soap spirit, made from equal parts of soap and alcohol, or with the following scented combination:—

℞ Tincturæ lavandulæ compositæ, f℥iij (12 c.c.).
Saponis mollis,
Alcoholis, āā f℥iij (90 c.c.).
Misce.

After this the head should be washed in several changes of water and thoroughly dried. Should such frequent use of soap cause the hair to become too dry, the occasional use of the yolk of an egg, beaten up in a glassful of water, will be beneficial.

In addition to the cleansing procedures, prescription of a lotion or pomade is often advisable. Of lotions, the following is recommended by Sabouraud:—

℞ Hydrargyri chloridi corrosivi, gr. x (0.6 Gm.).
Acidi salicylici, gr. xl (2.5 Gm.).
Alcoholis, f℥iv (120 c.c.).
M. et ft. lotio.

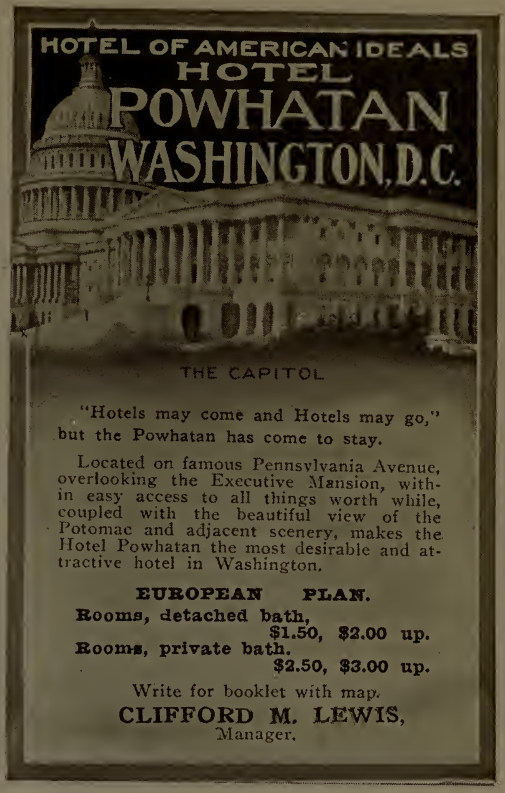
A sulphur lotion is preferred by Brocq:—

℞ Sulphuris præcipitati, ℥iv (16 Gm.).
Spiritus camphoræ, f℥vj (24 c.c.).
Glycerini, f℥ij (8 c.c.).
Aquæ, f℥iv (120 c.c.).
M. et ft. lotio.

Another good lotion, owing its action to resorcinol, is:—

℞ Resorcinolis, ℥ij (8 Gm.).
Alcoholis, f℥iij (12 c.c.).
Glycerini, f℥iv (16 c.c.).
Aquæ rosæ, f℥iv (120 c.c.).
M. et ft. lotio.

In severe cases, especially in male patients, better results may be secured by the use of pomades, *e.g.*:—



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Olei theobromatis, f℥j (4 c.c.).
Olei ricini, f℥v (20 c.c.).
Tincturæ benzoini compositæ, ♏v (0.3 c.c.).
M. et ft. unguentum.

II.

℞ Resorcinolis,
Acidi salicylici, āā gr. x (0.6 Gm.).
Olei cadini,
Adipis lanæ hydrosi,
Petrolati, āā ℥ij (8 Gm.).
M. et ft. unguentum. (N. Y. Med. Jour.)

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Department on the Internal Secretions

Original Articles and Summaries of Selected Articles

SOME MOOTED POINTS IN THE PATHOGENESIS AND TREATMENT OF DISORDERS OF THE DUCTLESS GLANDS.*

By R. ALEXANDER BATE, A.B., M.D.,
LOUISVILLE, KY.

WHILE the diseases of the ductless glands are receiving considerable attention, the general practitioner often encounters problems which available knowledge does not seem to solve. All observations of an unusual character cannot but prove useful, therefore, even though they serve only as riddles for the investigators. How, for instance, is one to explain the following case: A well-nourished, apparently healthy Hebrew girl, 15 years of age, was examined by a school physician about eighteen months ago, and referred to a laryngologist for the removal of her tonsils and adenoids. Shortly after this operation there developed emaciation, asthenia, vertigo, pigmentation, and inability to make the upper and lower teeth meet, death following within a year. Had an "epithelial body," or perhaps the so-called "glandular strand" of the hypophysis, unwittingly been removed? This question is suggested by the following facts: The thyroid, parathyroids, thymus, and anterior pituitary glands originate from the primitive pharynx. Piersol has observed a prolongation of the hypophysis, persistent during life, passing through a canal in the base of the skull and connecting with the oral epithelium. Cushing observes that accessory glandules may persist anywhere between the pharynx and the pituitary body. Glands and a glandular strand are usually to be found in the pharyngeal mucosa.

Yet, the case referred to presents the characteristics of Addison's disease in its rapid form. The emphasis laid by Sajous on the intimate connection between the various ductless glands and the adrenals, with the latter organs

* Summary of paper read before the Louisville Society of Medicine.

as predominant factors, affords a more direct explanation. Reflex paresis of the adrenals in the child, through the action of the sympathetic system which governs the functions of these organs, would suffice to explain the lethal termination. Are we dealing only with a concomitant development of the Addisonian syndrome? This is also a possibility.

Conception has seemed, at least in the writer's practice, to be greatly facilitated by hyperthyroidism. He has not observed a case of exophthalmic goiter in which, pregnancy being possible, it did not occur quickly and repeatedly. The use of thyroid gland in the obese also favors pregnancy, as previously noted by Montgomery. In 1 of the writer's own cases, a woman of 240 pounds, whom thyroid gland had reduced to 200 pounds, conception occurred, though eleven years of married life had proven sterile. A normal pregnancy and labor followed.

How is one to explain this phenomenon? The thyroid gland enlarges during menstruation. Lange found it enlarged during the fifth and sixth months of pregnancy. The anterior lobe of the pituitary gland is known also to enlarge during pregnancy, and this is said to account for skeletal and other tissue growth observed during gestation. Greater oxidation in the tissues must be effected; hence the increased activity of the adrenal system *i.e.*, of the pituitary, thyroid, and adrenals. Manifestly, it is the general vital functions that are enhanced under the influence of the overactive thyroid gland of hyperthyroidism, and the reproductive apparatus takes part in this enhanced activity.

The above facts also afford explanation of a remarkable case of Dr. Frank C. Wilson, in which a patient grew 6 inches during an attack of typhoid fever. The thyroid gland hypertrophies and becomes congested apparently in all infectious diseases, presumably—according to Sajous—to raise resistance to disease, both by enhanced oxidation and the production of bacteriotropic substances, thyroiodase or opsonins and agglutinins. Thus it appears possible that the same cause may operate to produce changes in the pituitary, the thyroid, and the adrenals. The anterior pituitary may have been primarily influential in causing the rapid skeletal changes, by exciting the other glands of the adrenal system. Yet, Cushing believes changes occur in these several glands because of biochemic factors and not because of a vicarious function of the structure left behind. It certainly appears to me that this biochemic action is itself vicarious or at least complemental. Except for the presence of exophthalmos, Cushing recognized no symptom of hyperthyroidism in cases observed with enlarged hypophysis. If these cases were attended by destructive lesions of the latter organ, one could not expect hyperthyroidism, since overactivity of the pituitary could alone induce it.

Sajous holds that disturbances of various ductless glands are often due to disorders of the sympathetic system. Excessive sweating of the palms of the hands and many minor symptoms of hypothyroidism, for instance, may be referred to the sympathetic system through heredity. This is confirmed by the writer's observations of 35 cases in private practice; 3 have

been the daughters of exophthalmic mothers. Several subjects were prematurely born, and many more were the first born,—though history relative to this point was not obtained in many cases. That prenatal conditions may occur as causative factors is also suggested by the fact that pregnancy is attended by pituitary, thyroid, and adrenal changes. We know that the vomiting of pregnancy ceases about the time the thyroid hyperplasia occurs. Could an unbalanced maternal adrenal system predispose to an uncertain equilibrium in the adrenal system of the progeny?

Gouty tendencies have seemed to some to play a predisposing part in exophthalmic goiter. I have not found mentioned an immunity on the part of the negro race; but neither in private nor public clinical practice have I seen a case of exophthalmic goiter except in 1 octoroon and 1 negro girl. The fact that females are affected so much more frequently than men is probably due to regular menstrual and gestational congestion of the thyroid in the former, and its apparent ovarian coactivity. Besides, it is a fact that the reflex system is more easily impressed in the female. Gastroenteroptosis is likewise much more frequent in females. Several cases of Graves's disease have been reported as cured by the use of the Rose abdominal adhesive straps.

Fright, anger, any profound emotion, through the shock imparted to the sympathetic, may disturb the equilibrium of the adrenal system.

A young man 21 years of age was accompanying a friend in Chicago to hear Roosevelt speak. The building was so packed, because of the crowd outside forcing more in, that many fainted—among them the young man's friend. The young man became much agitated because of this, and very shortly afterward he was found to have exophthalmic goiter.

In the case of the octoroon previously referred to, an emotional beginning was also witnessed. This patient became very angry, and almost immediately enlargement of the thyroid, great weakness, muscular tremors, very slight exophthalmos, headache, tachycardia, and sweats occurred. All the symptoms disappeared under treatment in less than three months. The predominance of sympathetic influence in all these cases is obvious.

Atony of the large intestine has been variously regarded as both the cause and effect of exophthalmic goiter. The absence of symptoms of disturbance of the adrenal system in cystic goiter has led me to the thought that the cystic tumor may actually develop from the tissue derived from the two lateral anlages, considered by some not to be true thyroid cells.

Dock believes exophthalmic goiter no uncommon disease, constituting 1 case in about every 100 medical cases coming under his care. The disease has appeared to me to be greatly on the increase. Can this be due to overstimulation of sexual desire by modern dress and customs; or to ungratified lust from delayed marriages; or to diminished pregnancies? Sajous holds that we should look for autointoxication in its various forms as a predominant cause.

A diagnosis of Graves's disease can, in most cases, be made before tachycardia or exophthalmos exist. It is not always easy or even possible

to say when the symptoms of hyperthyroidism have merged into hypothyroidism. Indeed, during the transition stage, the patient is greatly improved. The myxedematous or last stage is, however, again easily recognized or differentiated.

In dyspituitarism skeletal changes are usually observable. Adenoid growths, tonsillar hyperplasia, and optic nerve changes usually exist. The so-called neighborhood symptoms of Cushing are present if the pituitary change causes any pressure upon adjacent tissues. Glycosuria, headache, vomiting, blood-pressure variations, and many other phenomena are present in disturbances of any of the three ductless glands constituting the adrenal system. In dysthyroidism the headache is similar to that of iodism and there are no signs of intracranial pressure. Undoubtedly neurasthenic symptoms precede the cases that are slow in development. Close inspection, together with the history, may clear up the doubt in these instances.

Certainly the prognosis of exophthalmic goiter is much more favorable than formerly. Not a case coming under my observation has failed to improve. Only a few, however, have shown disappearance of all anatomic changes. Exophthalmos, thyroid hyperplasia, and tachycardia entirely disappeared from 3 cases. Tachycardia has disappeared from every case that has remained under observation one year.

Exophthalmos perhaps depends, from my viewpoint, upon pituitary reactions transmitted through the sympathetic and the fifth nerves, and to the cervical branches of the sympathetic. These nerves are stimulated to activity by thyroid substance, by certain toxins, and by emotions, as fear, etc. While Cushing believes the exophthalmos of pituitary tumor a neighborhood symptom, exophthalmos has been relieved by the removal of the thyroid gland and sometimes by section of the cervical sympathetic. The operation in both instances has relieved the exophthalmos of the corresponding side. In some cases, although hyperthyroidism or the cause of the exophthalmos may have been removed, the protrusion may persist because of permanent hyperplasia.

Tachycardia occurs in diseases paralyzing branches of the vagus. Possibly the adrenal system disturbances traced to intestinal toxemia impress the sympathetic system through this connection. Correlated effects are observed from the ingestion of thyroid substance.

Atrophy of the thyroid, kidneys, brain, and adrenals, as well as other organs, is said to take place from continued overdoses of thyroid substance. Yet it may be mentioned here that the use of thyroid has been found serviceable in arrested growth, delayed union of fractures, tetany of gastroenteric origin, and in puerperal eclampsia. It is to its use in excessive doses or too long that one must ascribe all morbid symptoms. It is contraindicated in albuminuria, as it congests the kidneys. Indeed, my experience has led me to doubt its usefulness in puerperal eclampsia, because of its effect upon the kidneys.

The indications for medical treatment in exophthalmic goiter depend entirely upon the cause and the morbid changes existing at the time of

observation. In the stage of hyperthyroidism the equilibrium of the adrenal system should be restored by the use of the complemental secretions and by controlling the sympathetic system. The cause should also be removed when possible. Before pituitary substances were on the market, the *adrenal secretion* appeared antidotal to the thyroid, and was fairly successful in its result, as observed by myself in several cases. The use of *pituitary substance* (posterior lobe) seems much more rational, however, in that it controls both thyroid and adrenal activity and favorably influences the sympathetic if given in small doses. Most glandular preparations, in my estimation, are frequently given in excessive doses.

Quinine preparations probably yield their excellent results in two ways, —which may, after all, be one. The iodine is counteracted, and "the sympathetic center is stimulated" (Sajous). Vasoconstriction occurs; there is contraction of the central vascular trunks; reflex sensibility is influenced; leucocytes laden with iodine are checked in their movements, and the elimination of urea is enhanced, while its formation is greatly cut down. Quinine hydrobromide, valerianate, and sulphate have usually been selected in my practice. Crile's anociassociation technique has so brought into notice the quinine and urea salt, however, that the latter will probably be generally employed for its influence upon the sympathetic system.

The rather homeopathic use of *iodine inunctions* over the hyperplasia of the thyroid has proven very satisfactory in the reduction of the glands and consequent symptoms. Recently John Edwin Hays mentioned to me the specific action of *strophanthus* in exophthalmic goiter. Its use has given most satisfactory results. I can find very little reference to its employment. Not even Sajous speaks of it; but his explanation of the physiologic action of strophanthus explains the results.

On the whole, the quinine salts should be used along with the strophanthus, just as with the pituitary substance. From the results observed I believe the strophanthus compels the secretion of what is artificially supplied by the exhibition of pituitary substance.

The use of *thymus gland* has been reported as followed by excellent results in cases that had resisted all other treatment. There have been several observations tending to indicate that the thymus and thyroid glands are just the antithesis of complemental, viz., that one serves as a possible check upon the other. Thus, the thymus is most active in its prenatal state, while the thyroid is most active postnatally, as the thymus activity subsides. This suggests, in its turn, that thyroid administration may be indicated not only to control the vomiting of pregnancy, but to prevent thyroid excess in the progeny.

It is not always easy to determine the proper line of treatment, as the stage of hyperthyroidism merges into that of hypothyroidism. The same principles are still to be applied, but proper judgment on the part of the physician will greatly influence the result. The hypothyroidism, or cachexia strumipriva, is to be treated with the opposite agents, *i.e.*, the deficient thyroid secretion must be supplied. The explanation of the thyroid and

iodine intolerance in some cases, and of thyroid and iodine tolerance in others, is, of course, quite clear now. Hyperthyroidism is a condition in which there is already too much thyroiodase in the system; in hypothyroidism there is an insufficiency or a total deficiency of the secretion.

The use of *serums* from animals from which the thyroids have previously been removed has always impressed me as a slow method of giving the patient pituitary and adrenal substances unneutralized by thyroid secretion. *Pancreatic preparations* are undoubtedly of service. *Alkaline aperients* and *rest* of body and mind must be judiciously used by the physician as occasion demands.

Surgical treatment has seemed quite satisfactory in many reported cases, but there have been no results in others, and death or cachexia strumipriva has followed in some. On the whole, surgical treatment seems unscientific, unless a pathologic growth or mechanical cause exists.

Hale White, recording the results of medical management of exophthalmic goiter during the last twenty years, finds that in about 80 per cent. of cases the recovery has been permanent. "In my own personal and consultation practice," says Solis-Cohen, "I have had the opportunity to observe a number of patients for periods varying from a few months to twenty-five years after apparent recovery under non-surgical treatment. In but one instance has there been relapse, and in no case has death occurred from any condition with which Graves's disorder could be causatively associated."

THE SYNDROME OF PERSISTENT JUVENILITY.*

By DR. LÉOPOLD-LÉVI,

PARIS, FRANCE.

Persistent juvenility not exceeding physiologic limits is characterized by lack of the corpulence commonly observed in elderly individuals and an easy gait, frequently the result of continued indulgence in outdoor sports. Juvenility is not reflected solely in the external appearance; each active apparatus in the organism preserves in its functioning the characteristics of youth. Juvenile persons are frequently great heat producers, withstanding cold well and often going without overcoats in the winter time. The voice remains young and fresh. The psychic condition is also of interest, these individuals often continuing to feel a need of constant activity and movement, doing things with feverish haste, *e.g.*, eating rapidly. They are quick, pleasure-loving, fond of novelties, inquisitive, enthusiastic, and optimistic. The sexual apparatus remains active longer than usual, menstruation continuing, for example, to the age of 55 years.

* Summary of article in Bulletins et Mémoires de la Société de Médecine de Paris, February 28, 1914.

In more pronounced—abnormal—juvenility there is noted a tendency to excitement of various systems of organs, whence arise various special clinical manifestations, such as tachycardia and palpitation; ready production of diarrhea by relatively slight causes; itching and especial sensitiveness of the skin to the application of topical remedies, and general muscular spasm. The reactions of the organs to external influences are also exaggerated. High fever is readily developed, even from slight infections.

Sometimes the condition is even more pathologic. The juvenile individual often consults the physician merely for a *thyroidolepsy*. The patient suffers from migraine or vertigo, asthma, mucomembranous enteritis, skin disorders or attacks of rheumatism, acute gouty attacks, paroxysmal angor, periods of hyperthyroidism, and temporary recrudescences of Basedow's disease. A methodical search frequently will show, especially in the female sex, a small endogenous goiter. The presence of sugar in the urine is not exceptional in this condition.

From the above picture, which is that of complete persisting juvenility, must be differentiated others with variations from the general type. Thus, juvenilism may exist, but a few discordant features assert themselves simultaneously. The subject's skin may still present a roseate tint, and the eyes remain bright and the eyebrows black; but the hair has fallen out or, more frequently, has turned white. At times a slight adipose excess does not remove the juvenile appearance.

In other instances the juvenility is *partial,* manifesting itself in a single feature which clashes with the other physical peculiarities as a whole. Such a feature may be, *e.g.,* the persistence of black hair, a persisting good condition of the teeth, or a freshness of the voice, which contrasts with the manifest general results of wear and tear in the same subject.

Juvenility and *senility* are at times in admixture, a young-appearing face coexisting with white hair and beard. Again, a physique of elderly appearance may be associated with a juvenile psychic disposition, or *vice versâ.*

To a special form of juvenility may be applied the term *puerojuvenilism.* These subjects are chiefly young girls 25 to 30 years old who present the appearance of girls of 15 to 25.

Pathogenetic Significance of Persistent Juvenility.—Where persistent juvenility is met with in subjects normal in all respects it may be conceived that the tissues in general, or those of some organ or system of organs in particular, are offering an exceptional degree of resistance to the numerous usual causes of senescence. Such an explanation, however, while embodying an element of truth, is vague and lacks precision.

Actually, pathologic juvenile states permit better of working out this question of pathogenesis. In the first place, it is of interest to note in what morbid states persisting juvenility is to be met with. By the tachycardia, the readiness with which diarrhea is induced, the itching, and the general nervousness these subjects present, a tendency toward *hyperthyroidism* is suggested. This tendency is further accentuated when these subjects, as is

not infrequently the case, present one or more of the thyroidoleptic phenomena already referred to. Finally, juvenility may be said to form part in the Basedow syndrome; Campbell, *e.g.*, has reported 2 Basedow cases that appeared younger than they really were.

If, on the other hand, it is remembered that myxedema results in a premature senile state, each of the features of which is regularly opposed to those constituting the clinical picture of persisting juvenility, the contrast thus formed will afford an additional argument in favor of the pathogenetic relationship above suggested.

Thyroid treatment adds further and important evidence in its favor. Thyroid administration is, indeed, capable of evoking or accentuating the various characteristics of juvenility, viz., the roseate tint of the facial skin, the brightness of the eyes, the normal condition of the hair, mental activity, the sexual function, etc. Thus one is definitely led to attribute to exaggerated functioning of the thyroid gland a rôle of prime importance in the production of persistent juvenility.

This does not amount, however, to saying that the thyroid is alone the basis of the syndrome referred to. It is through a mutual functional accord of the ductless glands that the various activities of the body are directed, and the reaction of these glands, one upon the other, is a fundamental conception in endocrinology. Thus, in infantilism, a condition essentially subordinate to the testicular function, the subject presents an aged, wrinkled, gerodermic facial aspect, which betrays the influence of the testicles on the appearance of the individual. True, if the question in its entirety is to be considered, testicles (and ovaries) are themselves subordinate, in their development and functioning, to a normal condition of the thyroid gland. That the latter organ plays the essential part need not occasion surprise when its action on the oxidation, the nervous system, and the vasomotor and trophic system is recollected. To prevent premature old age or procure an extension of the juvenile period, organotherapy, in particular thyroid therapy, may thus be added to the other methods already available, such as correct diet, hygiene of the nervous system, skin, teeth, and hair, massage, and outdoor sports.

CORPUS-LUTEUM ORGANOTHERAPY IN CLINICAL PRACTICE.*

By WALTER T. DANNREUTHER, M.D.,

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Fresh corpus luteum or a desiccated extract of it is much more potent than the ovarian preparations, and its administration in suitable cases is followed by striking and gratifying results. The particular conditions for which it will be found serviceable and to which its use should be limited are:

* Summary of article in the Journal of the American Medical Association, January 31, 1914.

(1) Functional amenorrhea or scanty menstruation; (2) dysmenorrhea of ovarian origin; (3) manifestations of physiologic or artificial menopause, such as nervous or congestive disturbances of reflex origin (hot flashes, psychoneuroses, etc.); (4) "neurasthenic" symptoms during menstrual life; (5) sterility not due to pyogenic infections or mechanical obstruction; (6) where the function of one ovary is impaired, or one ovary has been removed, and the compensatory activity of the other is insufficient; (7) repeated abortions not due to disease or mechanical factors, and (8) hyperemesis in the early months of pregnancy. It is useless to prescribe corpus luteum in cases such as amenorrhea due to extreme anemia, dysmenorrhea due to cervical stenosis, or all cases of sterility.

The author has observed that (1) at first patients taking corpus luteum often complain of vertigo, but this rapidly disappears; (2) toleration is soon established; (3) its physiologic action does not resemble that of adrenalin and it does not elevate blood-pressure; (4) the pulse rate is usually increased; (5) it is of the utmost importance to employ an extract obtained from the ovaries of pregnant animals only, and (6) constant supervision of the blood-pressure of patients taking corpus luteum is imperative.

A distinction must be made between corpus luteum (the fresh yellow body), ordinary desiccated extracts, and those made from the ovaries of pregnant animals exclusively. The use of fresh corpus luteum, fed to patients as a salad or sandwich in large and uncertain doses, has been discontinued. The author has used, to the practical exclusion of all others, an extract obtained from pregnant cows, which, although it cannot be accurately assayed, represents approximately 6 times the weight of the moist glandular substance. He prescribes 5-grain (0.3 Gm.) capsules three times a day and has seldom had occasion to increase this quantity, although 10-grain (0.6 Gm.) doses have been necessary in certain instances. The potency of such amounts is almost a verification of the source of the extract. He has nearly always observed a reduction of blood-pressure after a week's use of the 5-grain doses, and whenever the pressure drops too rapidly the patient is ordered to discontinue the drug temporarily. Before the physician gives a patient corpus luteum he should take a careful sphygmomanometric reading, and weekly readings thereafter. If the blood-pressure falls as much at 15 mm. the treatment should be stopped until 10 mm. of this loss has been recovered, when it may be cautiously resumed. At times, however, a decrease of even 15 mm. of blood-pressure would be beyond the limit of safety; it should never be permitted to fall below 90 mm. Another point of importance is the necessity of always getting a comparatively freshly made extract. The author would place the limit of time on its reliability after manufacture at about three months.

The author's experience with the drug includes about 80 selected cases, the greater number in private practice. With few exceptions, the results were very encouraging. In the slightly obese, pale, and anemic type of young woman who soon after puberty consults the physician because of

headaches, malaise, nervousness, acne vulgaris, constipation, and scanty menstruation, while proper hygienic measures, with arsenic and iron, are of value, the conjoint administration of corpus luteum extract apparently promotes the menstrual flow and has a salutary effect on the general economy. In addition, the author has frequently noted a loss of the excess in weight and a marked improvement in tissue tonicity in these patients. Cases of dysmenorrhea due to functional ovarian deficiency were almost invariably relieved by corpus luteum. Climacteric symptoms, such as hot flashes, psychoses, vesical irritation, etc., due either to the physiologic or artificial menopause, were prevented or readily controlled. The results in these cases were most striking, even after hydrotherapy, the valerianates, bromides, etc., had proved of no advantage. In 2 cases of pruritus vulvæ, associated with the menopause, the itching was so quickly alleviated by corpus luteum as almost to indicate a selective action on the external genitalia.

Instances of so-called "neurasthenia" occurring in women during menstrual life, often really reflex manifestations of menstrual disturbances, may be entirely relieved by a proper extract of corpus luteum, after other extracts have proven of no avail. Most cases of sterility in women are due to gonococcal or other pyogenic infections, cervical stenosis, or some other local cause. Occasionally, however, examination of a patient shows nothing pathologic in the pelvis. For example, a married woman of 31, in apparent good health, sought advice in March, 1913. She complained of scanty menstruation, prolonged intervals, and sterility. She had two children, but was anxious to conceive again. Corpus luteum extract, in full doses, promptly increased the quantity of her flow and reduced the intermenstrual interval to about twenty-six days. She became pregnant the following July. It would appear that corpus luteum is not wholly without merit in enhancing the possibility of pregnancy in sterile women, particularly if used in conjunction with intrauterine negative galvanism. When one ovary has been destroyed or removed, or its function impaired, there usually occurs a compensatory activity in the remaining or healthy ovary. But at times the apparently healthy ovary, for one reason or another, is incapable of assuming the added burden. Corpus luteum is then indicated as a supplementary aid, and the results therefrom in these cases, with one exception, have been excellent. One of 2 cases of repeated abortion in which the cause was obscure was carried to full-term labor by the use of corpus luteum extract. Corpus luteum is also of service in allaying the hyperemesis of early pregnancy.

In one of the author's cases menstruation was re-established by corpus luteum extract after bilateral salpingo-oöphorectomy. She was given 5 grains (0.3 Gm.) of corpus luteum extract, in capsules, three times a day. The extract was commenced October 27, 1912. On January 2 and 3, 1913, she experienced slight backache and a sensation of fullness in the pelvis, and, on January 4th, began a menstrual flow, which lasted three days. On January 29th, she menstruated again for three days, more profusely than the first time. On February 26th and March 29th, the duration of the flow

was prolonged for five days each time. The capsules had been taken regularly until the latter date, except for short intervals necessitated by decreased blood-pressure. After the fourth menstruation the patient was instructed to take the luteum only during the ten days immediately preceding the expected date of menstruation, as it was evident that the menstrual function was becoming firmly re-established. That this view was justified was clearly shown by a report from her the following August, that she had menstruated for about five days every thirty days. The specimens from this case were enucleated intact, and close inspection demonstrated beyond all question that no ovarian tissue was left in this patient's pelvis. Permanent continuance of regular menstrual periods in this patient until she reaches the natural menopause age cannot be predicted with positive assurance, but the recurrence of menstruation for even one year and the absence of unpleasant reflex symptoms are encouraging.

RELATIONS BETWEEN ADRENAL SYNDROMES AND DISTURBANCES OF THE ADRENAL FUNCTIONS.*

By LÉON BERNARD, M.D.,

PARIS, FRANCE.

The adrenals contain three varieties of cells, essentially different in their embryonic origin, morphologic features, chemical constitution, functional rôle, and morbid reactions. These are: (1) The cortical cells; (2) the medullary cells, and (3) the nerve-cells.

The *cortical cells,* which make up the entire cortex, but may also exist as small inclusions in the medullary substance, are glandular cells secreting several kinds of products. The most important of the latter is a mixture of lipoids among which may be recognized lecithins (Bernard, Bigart and H. Labbé, Mulon) and cholesterin (Chauffard, J. Troisier, and Grigant). These fatty substances distend the cells, occurring variously in a dichroic state, in the form of fixed fat, or as labile fat. This diversity of form might lead to the supposition of different cells existing in the cortex. Such is, however, not the case, the cortical cell being a single element, though its most perfect type is the spongiocyte (Guieysse), the especial aspect of which is due to the presence of labile fat, *i.e.,* of lipoids. The author's experiments, confirmed by Bardier and Bonne, have shown that it is to these spongiocytes that falls the task of neutralizing muscular poisons—the myotonic function of the organ. By general consensus there is also attributed to them a general antitoxic function, the existence of which is rendered probable by all that is now known concerning the rôle of the lipoids in the defense of the organism, but can hardly be said to have been definitely demonstrated by experiments intended to show it directly. It is

* Summary of article in Presse médicale, October 4, 1913.

possible that the adrenals produce these antitoxic substances, but are not themselves the seat of the antitoxic reaction. The cortical cells also produce siderophile substances and pigments, the rôle of which is not yet exactly known.

The *medullary cells,* also termed chromaffine or chromophile, have, on the other hand, been carefully studied. The granulations they contain produce epinephrin, which, as a true internal secretion, escapes from the organ, to circulate in the blood. Since epinephrin assists in the regulation of blood-pressure by virtue of its hypertensive property, it is the chromaffine cell which must be considered the basis of the angiotonic function of the adrenals.

The *nerve-cells,* met with in the medullary portion of the organ, as well as in the surrounding connective-tissue capsules, are in intimate relationship, on the one hand, with the solar sympathetic system, and, on the other, with the chromaffine cells. In all parts of the organism containing them, sympathetic and chromaffine cells are found associated, and to this anatomic association doubtless corresponds a physiologic solidarity, concerning which, however, insufficient knowledge is now at hand.

By reason of various morbid processes, the cells above described undergo changes which the author, with Bigart, has studied in intoxication experiments.

Hyperepinephria is accompanied by a change of all the cortical cells into spongiocytes. The latter contain a large, clear nucleus, and their protoplasm is filled with labile fat. The excess production of labile fat is so marked that some can be seen in droplets outside of the cells themselves. The increased size of the cells causes, moreover, a disturbance in their trabecular grouping, and here, as in other glands, there is produced a state of nodular hyperplasia which may extend to the formation of an adenoma.

Excessive cortical activity may also be manifested in an increase in the siderophile and pigmentary products. Frequently, but not always, all three forms of increased secretion are met with.

Finally, hyperepinephria manifests itself in the medullary substance by a distention of the chromaffine cells, which are well preserved and filled with epinephrin-generating granulations.

Hypoepinephria shows itself microscopically by changes of opposite nature. In the cortical substance the spongiocytic condition disappears; labile fat is no longer present; the cells, of which a few present a dichroic aspect or contain fixed fat, are for the most part small, shrunken, and with finely granular protoplasm; the pigment and siderophile substances are generally diminished; the nucleus is likewise small and dark, and the trabeculæ are often displaced.

In the medulla the chromaffine cells are sparse, wilted, and devoid of epinephrinogenous granulations.

Of these histologic features, some are readily recognizable in autopsy work on man; others are not there visible, by reason of cadaveric changes,

but can easily be demonstrated in experimental work. Sézary has shown that the histologic constitution of the adrenals can be predicted, in man, from macroscopic examination alone.

The structural changes in the adrenals are paralleled by perversions in its secretions, which, in turn, become manifest in clinically recognizable symptoms. The *adrenal syndromes* are three in number: (1) Hyperepinephria; (2) hypoepinephria, and (3) the melanodermic or pigmentary syndrome.

The *syndrome of hyperepinephria* consists essentially of the results of excessive secretion of epinephrin. The effects of cortical excessive glandular activity are not apparent clinically, only those of medullary excess being perceptible. The excess of epinephrin gives rise to three types of disorder, which, in fact, frequently occur in combination, viz., arterial hypertension, aortic atheroma, and glycosuria. These disorders were shown to occur, respectively, by Vaquez, Josué, and Blum. Post-mortem observations have revealed especially a cortical hyperepinephria in association with the first two conditions, but Wiesel, Vaquez, Aubertin, and Clunet have also detected distinct evidences of medullary hyperepinephria. Schur, Wiesel, and others claim to have demonstrated an excess of epinephrin in the blood of cases with hypertension, but the subsequent control observations have not all been confirmatory.

The arterial hypertension in hyperepinephria is generally evanescent at first, then undulant; finally it becomes permanent, and at this time causes such symptoms as vertigo, tinnitus, visual disturbances, headache, and epistaxis. Later, more serious manifestations appear, such as aphasia or transitory hemiplegia, convulsive seizures, and finally cerebral hemorrhage, acute pulmonary edema, or sudden death. Consentaneously with the varying development of these conditions is noted the oncoming of vascular sclerosis and cardiac hypertrophy.

With this syndrome of arterial hypertension is frequently associated interstitial nephritis, a condition which ordinarily provokes hyperepinephria (Dopter and Gouraud, Darré, Marassini). The hypertension in these cases does not depend entirely on hyperepinephria, but on other pathogenic factors.

Finally, hyperglycemia and at times glycosuria have been noted in subjects suffering from the vascular disorders of the syndrome of hyperepinephria (Weiland, Neubauer).

It is to be emphasized that only a certain number of cases of arterial hypertension or aortic atheroma are to be ascribed to excessive adrenal activity. Like symptoms may be met with in the absence of hyperepinephria.

The *syndrome of hypoepinephria* was first described by Sergent and the author in 1898. Its symptoms reflect functional disturbance, both of the cortical and medullary adrenal cells, and consist essentially of muscular asthenia—an expression of diminished myotonic functioning of the adrenals —and lowered arterial tension—an expression of their reduced angiotonic functioning. The muscular weakness, in its various modalities, is the principal symptom of adrenal insufficiency, and may even simulate actual

paralyses. The diminished vascular tension results in circulatory phenomena, such as tachycardia, arrhythmia, tendency to collapse and syncope, and peripheral vasomotor disturbances. Sergent's white line has been considered by him a pathognomonic sign, but recent authors have cast doubt on this. Adrenal insufficiency may also result in digestive disturbances (vomiting especially) and nervous disturbances, including mydriasis, headache, delirium, and even convulsive or apoplectoid seizures or coma (Sergent's adrenal encephalopathy). Finally, sudden death may also be caused by such insufficiency.

Hypoepinephria may present different modalities, according to the course of the adrenal disorder, which may be either chronic, subacute, or acute. The latter exhibits similarity to cases of poisoning, or at times peritonitis, cholera, or meningitis. Besides, there are met with, in infections or toxic states, more or less isolated and clearly discernible symptoms of hypoepinephria, which indicate the involvement of the adrenals by these infections or intoxications, especially diphtheria, scarlet fever, typhoid fever, erysipelas, and chloroform intoxication. Hypoepinephria has also been held directly responsible for certain conditions, such as constitutional angiohypotonia (Ferranini), the Erb-Goldflam syndrome (Raymond), and some neurasthenic or amyotrophic states.

The *melanodermic syndrome* is doubtless that which is least directly related to functional disturbances of the adrenals. It does not appear to be related to the pigment secretion in the cortical cells; it seems rather that the adrenals react on skin pigmentation through the intermediation of the sympathetic system, which normally regulates it. One can, indeed, describe a special sympatheticoadrenal apparatus, with several relays, constituted by the intra-adrenal nerve-cells, the periadrenal nerve-cells, and the extra-adrenal nerve-cells of the solar plexus. Whatever be the point which the morbid process attacks, the chromogenic function of the sympathetic reacts. Thus are to be explained cases in which the melanodermic syndrome has appeared as a sequel to lesions of the solar plexus, as well as those in which it follows adrenal changes. It does not correspond, however, with disturbances of the secretions of these glands, for it may develop where there is only partial, or even very slight, disease of the organs. It develops only in the presence of slow-going changes in them, never after acute destructive lesions. Finally, proof of its existence is supplied in experimental adrenal insufficiency. It is probable, however, that by virtue of the solidarity of the chromaffine cells and the sympathetic very special and intimate relations exist between the medullary adrenal cells and the nerve-cells, for adrenal administration is capable of alleviating and even curing the melanodermic syndrome.

This syndrome consists essentially of the discoloration of the skin and mucous membranes described by Addison, to which are often added epigastric and lumbar pains, indicating further its sympathetic origin. Clinically it is often witnessed for months or years when the lesions producing it progress slowly and fail to destroy the adrenals. Where, on the other hand, a

considerable amount of glandular tissue is destroyed, hypoepinephria adds itself to the melanodermic syndrome, the combination being known as Addison's disease. Adrenal tuberculosis oftenest gives rise to this condition, but it may also produce other disturbances, especially the acute syndrome of hypoepinephria.

ETIOLOGY OF ENDEMIC CRETINISM, CONGENITAL GOITER, AND CONGENITAL PARATHYROID DISEASE.*

By ROBERT McCARRISON, M.D.R.U.I., M.R.C.P. Lond.,

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The author fed white rats (1) on the filtrate of an emulsion of goitrous persons' feces, and (2) on aërobic and anaërobic cultures of organisms grown from the feces of goitrous persons. A number of rats were also confined in dirty, unhygienic cages, which were grossly contaminated by their own alvine discharges, with a view to determining the influence of such conditions of life on the development of goiter. Among the animals treated in these ways were a number of adult females which developed goiter of greater or less degrees of intensity. These gave birth during the period of the experiment to 146 young. The fathers of these animals were also sufferers from experimentally produced goiter. Of the young rats 63 were removed from the cages for examination. Of 5 animals born in the filthy, unhygienic cages all showed signs of thyroid hyperplasia. The parathyroids were found in all 5 cases, and were not affected. Of 16 animals born of a mother which consumed the filtrate of an emulsion of goitrous feces prior to and during pregnancy, 3 were cretins, 7 had thyroid hyperplasia—in 2 of these there was also partial fibrosis of the thyroid—and 7 were normal, while 5, or 38 per cent., had congenital parathyroid disease. The clinical features of the 3 cretins were similar, namely, stunted growth, curvature of the spine, low weight, and defective powers of motion. The thyroid and parathyroid glands of the cretin which was examined were completely destroyed, the parenchyma cells being almost wholly replaced by fibroblasts. Of 17 animals born of mothers which consumed aërobic cultures on agar of fecal micro-organisms, 7 had normal and 10 markedly hyperplastic thyroid glands. The 10 animals having disease of the thyroid were born of two mothers which consumed fecal aërobes prior to *and during* pregnancy. The 7 animals having normal thyroids were born of one of these mothers which consumed fecal aërobes prior to *but not during* pregnancy. The noxious action of the bacterial cultures was thus demonstrated. The parathyroids were found in 11 out of the 17 cases and were normal in all. Of 25 animals born of mothers which consumed fecal anaërobes, 8 had normal or almost normal thyroids, while in 17 the thyroid gland was markedly hyperplastic. The parathyroids were diseased

* Summary of article in the Lancet, March 21, 1914.

in 10 out of 18 cases in which they were seen, or 55.5 per cent. The parathyroid disease consisted in marked congestion, hemorrhages into the gland which destroyed large portions of its substance, and fibrotic changes. Fecal organisms which grow aërobically on agar, while capable of causing marked hyperplasia of the thyroid gland, do not appear to be capable of producing any ill effect on the parathyroid glands.

Conclusions.—1. Of the offspring of goitrous parents a small percentage are born cretins, approximately 63 per cent. are born with congenital goiter, 32 per cent. are born with congenital parathyroid disease, and 33 per cent. are born with normal thyroid and parathyroid glands.

2. Cretinism and congenital goiter are due to the action of toxic substances derived from the intestines of the goitrous mother on the fetal thyroparathyroid mechanism. Cretinism represents the maximum, and comparatively rare, effect of these toxins; congenital goiter, their minimum, and comparatively common, effect. Between these extremes all degrees of thyroid involvement may occur with or without associated swelling of the gland.

3. Congenital parathyroid disease is due to the action on the fetal gland of the toxic products of organisms, present in the intestine of the goitrous mother, which are capable of growth under anaërobic conditions.

Abstracts from Current Literature on the Internal Secretions

A Summing up of the Goiter Question.—Various enlargements of the thyroid are the result of temporary excessive physiologic demands, as at puberty, in pregnancy, infection, menstruation, etc. Many goiters of the simple and mild exophthalmic type undoubtedly recover spontaneously and, in many instances, various forms of medical treatment may hasten the recovery and restoration of the gland to an apparently normal condition. Simple goiters of long standing are often thrown into degeneration by giving iodine, causing thyrotoxicosis, but not exophthalmos,—although some symptoms are the same in these two forms of toxic goiter.

Encapsulated adenomas and simple colloid goiters which have resisted treatment are in most instances best dealt with by removal of enough of the gland to extirpate the disease. In simple goiter the more enlarged lobe should be extirpated; encapsulated adenomas should be enucleated, and thyroids which are bilaterally enlarged should be subjected to double partial resection, with division of the isthmus.

Exophthalmic goiter is essentially a disease chronic in character, presenting exacerbations and ameliorations of symptoms extending through a period of months or several years. While the disease is amenable to surgical treatment by the removal of a large part of the hyper-

secreting gland, this procedure should by no means be considered emergency surgery, and during exacerbations all cases should be considered medical. Surgical treatment is indicated during the upward wave of improvement. Extreme conditions, especially dilatation of the heart, may require preparation medically before institution of operative interference, and this should be confined to a preliminary ligation of the left upper pole. Should reaction follow this, ligation of the right upper pole is indicated a week later, thyroidectomy being reserved until the patient has gained in weight, and general health. Otherwise thyroidectomy is done at a second operation.

In operating on the thyroid the best exposure is obtained by a curved transverse incision through skin and platysma between the anterior jugular veins, making a wide separation of the flaps, and a midline vertical division of the muscles to expose the thyroid. This division should be made high near the insertion, to break the line of the scar and preserve the function of the muscle. In some cases the wound may be closed without drainage, the cavity being filled with salt solution. As a rule, however, patients are more comfortable if drainage is instituted for twenty-four hours. A subcuticular closure of the wound with catgut, approximating the platysma muscle, secures an almost imperceptible scar. C. H. Mayo (New York Medical Journal, December 6, 1913).

* * *

X-ray Exposure of the Ovaries in the Treatment of Exophthalmic Goiter.—The apparent relationship of the reproductive organs and thyroid in women led the author to utilize the powerful action of the X-rays on the ovaries as a therapeutic measure in Basedow's disease. In each of the 10 cases in which the procedure was tried favorable results were observed. The most marked effects of the treatment were manifested by a gain in body weight, which took place in 8 of the 10 cases, and ranged in degree from 2.3 to 21 per cent. of the original weight (average, 11 per cent.). The 2 patients in whom a reduction in weight occurred instead had been under treatment but a short time. The exophthalmos was not influenced in one-half the cases, but in the other 5 it was more or less markedly diminished, in one instance even disappearing completely. The tachycardia was sometimes considerably lowered, at others to a less extent. It was particularly in the subjective state of the patients that the rays seemed to exert a remarkable effect. With the exception of but 1 case, which had had but 3 X-ray treatments, all the patients felt much better as a result of the procedure, the majority even resuming their previous occupations. A very favorable effect was exerted by the X-ray on the diarrhea, which in 3 instances ceased entirely after the first exposure. In short, aside from the goiter itself, nearly all the manifestations of Basedow's disease were favorably influenced by irradiation of the ovaries. In no patient was a complete cure effected; but judging from previous experience in the non-operative treatment of exophthalmic goiter, the author was led to conclude that, at least in the cases of moderate severity

(which include the large majority of patients), irradiation of the ovaries yields more certain and rapid effects than the measures customarily employed.

It might have been thought that combined irradiation of the ovaries and the thyroid itself would prove of advantage. Of 3 cases, however, which had been previously considerably improved by treatment of the ovaries and in which thyroid irradiation was then tried, 2 were made distinctly worse. Immediately after the first X-ray exposures of the thyroid the pulse rate rose, the body weight diminished, and the general condition of these patients was aggravated, while in the third case the condition remained stationary.

As for the mode of action of ovarian irradiation, the author is inclined to conceive of it as modifying their internal secretory function. The ovaries doubtless produce a substance which provokes in the thyroid functional modifications manifested as Basedow's disease. Under the influence of the X-ray treatment, this pathogenic factor would thus be overcome and thyroid activity resume its normal course. J. Mannaberg (Semaine médicale, June 11, 1913).

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Fatal Acute Thyroid Enlargement.—The author examined the thyroid, thymus, kidneys, suprarenals, ovaries, and pituitary gland of a woman who had been naturally delivered of a normal male child. The following day severe bronchitis had been present, with marked dyspnea and inspiratory recession of the intercostal spaces. The neck measurement was given as 16 inches. The dyspnea and cyanosis had increased and death occurred the next day. An autopsy made twenty hours later showed acute bronchitis, but no laryngeal or tracheal stenosis. The thyroid showed regular enlargement and appeared to be solid except for one cyst 3 cm. in diameter on its posterior aspect. There were no hemorrhages into its substance. The thymus formed a long tongue-shaped mass, measuring 11 by 2 by 1 cm. The ovaries were normal in size and appearance; corpora lutea were present. Adrenals: The left measured 6 by 4 by 1 cm. and weighed 9.3 Gm. It was enlarged by a central adenoma. The right was normal in size and appearance and weighed 5.5 Gm. The pituitary measured 15 by 8 by 6 mm. Numerous sections were cut from different portions of the glands. The appearance of the thyroid was suggestive of the rapid formation of new colloid alveoli. Nowhere was there intra-alveolar cell proliferation such as is seen in exophthalmic goiter. No increased fibrosis was demonstrable, and round-celled infiltration and other signs of acute inflammation were absent. The thymus was normal. Kidney: The glomeruli were normal. The cells of the tubules were swollen; no excess of fibrous tissue present. Ovary: No increased fibrosis. Adrenals: Sections showed little deviation from the normal. Pituitary: The anterior lobe contained big eosinophile (pregnancy) cells in large numbers, arranged in groups surrounding a central cavity, as a rule, and most frequently found in the anterior part of this

lobe. The basophile cells were few. Large cells with protoplasm staining very feebly with any stain were frequently seen (exhausted secreting cells, or post-mortem change). The colloid was three or four times more abundant than normal. The pars nervosa had been invaded by the large eosinophile cells from the anterior lobe. White (Journal of Obstetrics and Gynecology of the British Empire, November, 1913).

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Entrance of the Internal Secretion of the Pancreas into the Circulation.—Some years ago Biedl reported the frequent occurrence of glycosuria in animals in which, either by drainage to the exterior or by the obstruction of the thoracic duct, the lymph was prevented from reaching the general circulation. In apparent harmony with this are reported cases of chyluria, due to a rupture of the chyle-duct or cistern, combined with glycosuria. Such observations have readily suggested the conclusion that some secretory product of the pancreas essential for normal carbohydrate metabolism is carried into the blood-stream by way of the thoracic duct lymph-flow, and that, when the latter is diverted or interfered with, glycosuria results as the most prominent symptom of the lack of the pancreatic product. This is not the only interpretation possible, however. Nervous factors might also be drawn into the explanation of the glycosuria, as the result of operative interferences. Carlson and Drennan (Proceedings of the Society of Experimental Biology and Medicine, volume xi, page 71, 1914) have remarked that ligation of the thoracic duct may cause a temporary hyperglycosuria owing to injury of the liver by the edema from the back pressure of the lymph. Fistula experiments do not exclude a temporary glycosuria due to the operation and the anesthesia. Furthermore, Carlson and Drennan have carefully repeated, with negative results, Biedl's experiment in which a fistula of the thoracic duct was produced. By ligature of the jugular vein and anastomosis with the thoracic duct the lymph supposed to contain the pancreatic product was discharged into the external jugular, which was slit open and secured to the skin, allowing free escape of the lymph. The urine showed no sugar at any time.

Inasmuch as extirpation of the pancreas brings on diabetes in from six to ten hours, while complete elimination of the thoracic lymph for from thirty-two to thirty-three hours does not induce even mild glycosuria, it is evident that the internal secretion of the pancreas enters the blood directly and not via the thoracic duct. (Editorial, Journal of the American Medical Association, April 18, 1914.)

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Pathogenesis of Goiter.—In the author's district goiter is widespread and endemic, but very mild. Analysis of an extensive material has convinced him that the goiter is the anatomic expression of an increased functional response to greater demands made on the thyroid from some cause. The gland responds by enlarging its secreting surface. There must be some endemic harmful influence against which the

thyroid seeks to rally all its forces. When they prove inadequate, cretinism or myxedema result. Animal food and protozoan affections make unusually great demands on the thyroid. The less vigorous the thyroid, the sooner it yields and enlarges, so that every goiter must be regarded as a sign of thyrasthenia. The thyroid in women has demands made on it in the course of the functioning of the ovaries and pregnancy, which co-operate to render it less resistant. This explains the larger proportion of goiters among women. The thyroid, adrenals, and hypophysis are in one side of the balance; the genital glands, pancreas, and parathyroid bodies in the other side. When one gland in each of these two groups becomes functionally deficient, the other glands in that group suffer with it. An unstable nervous system is liable to add its influence. This is the explanation for exophthalmic goiter the author believes. It is a neurosis, and may be correctly designated as neurotic thyreosis. Schiotz (Journal of the American Medical Association, from Nordiskt Mediziniskt Arkiv, vol. lvi; Internal Medicine, No. 2, 1914).

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Pituitary Tumor and Sellar Decompression.—Report of a case of hypophysis tumor in which sellar decompression gave prompt but only temporary relief. Most pituitary tumors attain, before they cause definite symptoms, such a size that it is impossible to remove them through the floor of the sella. The authors, therefore, advocate decompression performed as follows: An incision is made in the exact middle line of the nose and carried clear back to the nasopharynx in this line, separating the two layers of the nasal septal mucosa, but not entering the nasal cavity. The middle turbinals are forced apart by pressure with a metal glove stretcher and the sphenoidal ostia thus exposed. The mucosa covering the anterior wall of the sphenoid is gently elevated to give a perfect view of the ostia. The floor of the sphenoidal fossa lies about 10 cm. from the junction of the nasal vestibule with the upper lip. A probe, marked at a point 10 cm. from its tip, if placed against the floor of the vestibule of the nose at the junction with the upper lip, and directed in a plane which corresponds with a line running from the nasolabial junction backward and upward to form a tangent with the lower and outer margin of the orbital cavity, will, when introduced for 10 cm., impinge upon the floor of the pituitary fossa. The floor of this fossa is then removed by chisel and burr, and the decompression readily effected. Wilfred Harris and Cecil Graham (Lancet, November 1, 1913).

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A Pathologic and Clinical Study of the Thymus.—That the thymus is an indispensable organ in growing dogs seems to have been established. Thymectomized dogs grow abnormally fat and stupid, with alterations in the bones corresponding rather closely to those observed in rickets, and disturbances in the development of the jaws and teeth. A few dogs show convulsive conditions resembling tetany. Thymectomy causes a gradual decrease in the leucocyte count, while the ad-

ministration of thymus extract causes an increase. Disease or removal of the thymus causes a marked decrease in blood-pressure, rapidity of the pulse, and, finally, heart collapse.

Though closely parallel in their action, the thymus and thyroid cannot compensate for one another. Thymectomy causes a hypertrophy of the chromaffine cells of the adrenals and an excess of epinephrin in the blood. There is an antagonism between the sexual glands and the thymus. The development of the reproductive glands at puberty probably causes the involution of the thymus.

Of 56 patients operated on for tracheal stenosis due to enlarged thymus, 43 were completely cured by excision of all or part of the thymus. Many cases of infants dying at birth are due to hemorrhage into the thymus. This is much more frequent than is generally suspected. Defectively nourished children frequently show sclerotic atrophy of the thymus. This often coexists with congenital defects of various kinds and is frequently due to inherited syphilis, so that specific treatment should be given a trial in dubious cases. Cysts in the thymus sometimes cause sudden death from hemorrhage. Primary defective development of the thymus in childhood frequently coexists with abnormal mental states. The author suggests the importance of further research on the thymus to find out whether aplastic and hypoplastic conditions in this gland may not be etiologic factors in cretinism, mongoloid idiocy, and chondrodystrophic dwarfism. H. Klose (Journal of the American Medical Association, from Jahrbuch für Kinderheilkunde, December, 1913).

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Pathology of the Thyroid Gland in Exophthalmic Goiter.—A detailed pathologic study of fixed tissue preparations from 1208 thyroids, removed from patients whose condition would ordinarily have been diagnosed as exophthalmic goiter, showed that 79 per cent. of the thyroids contained large areas of marked hypertrophy and hyperplasia. A parallel clinical study showed that for a period of three years all patients with true exophthalmic goiter, and from whom gland tissue was removed, fall into this list.

In the series of 1208 so-called exophthalmic goiters, plus 585 so-called simple goiters, or a total of 1793 thyroids, but 4 instances of marked primary hypertrophy and hyperplasia of the parenchyma were noted which did not show clinical symptoms of true exophthalmic goiter. Three of the 4 patients were children.

Twenty-one per cent. of the 1208 glands studied were either regenerations or adenomas. Clinically, while all of these were markedly toxic, all were chronic and none of them would now be grouped clinically as true exophthalmic goiter.

By assuming that the symptoms of true exophthalmic goiter are the results of an excretion from the thyroid, and by attempting to determine the amount of such secretion from the pathologic data, one is able to estimate in a large series of cases the clinical stage of the disease with

about 80 per cent. of accuracy and the clinical severity of the disease with about 75 per cent. of accuracy. It would, therefore, appear that the relation of primary hypertrophy and hyperplasia of the parenchyma of the thyroid to true exophthalmic goiter is as direct and constant as primary inflammation of the kidney is to the symptoms of true Bright's disease. L. B. Wilson (American Journal of the Medical Sciences, December, 1913).

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Intrapleural Injections of Epinephrin in Pleurisy.—Report of a series of about 20 cases of pleurisy in which injections of a 1 : 1000 solution of epinephrin hydrochloride into the pleural cavity constantly yielded such favorable results as to lead to his discarding all other methods of treatment in this condition, except surgical intervention where indicated. The amount injected was at first 0.3 c.c. (5 minims), and on the four or five succeeding days 0.2 c.c. (3.33 minims) in saline. As a result, the temperature would begin to descend on the third day and the effusion be rapidly absorbed, so that already by the tenth day the presence of fluid could only with difficulty be demonstrated. In dry and in purulent pleurisy the measure was also employed with benefit. Distinct improvement in the patient's general condition was among the additional favorable effects noted (Wedensky).

The same procedure was tried by another author in 6 cases of pleurisy with effusion, all in children ranging from 2 to 10 years of age. The dose used was at first 0.15 c.c. (2.5 minims) of the solution; this was later increased to 0.3 c.c. (5 minims) and in one case even to 0.5 c.c. (8 minims). Rapid absorption of the effusion followed, even in cases where previous exploratory puncture had shown little or no tendency to initiate absorption. In 2 cases of the series, perhaps because of somewhat excessive doses, a temporary acceleration of the pulse was witnessed under the influence of the epinephrin, together with well-marked diuresis and slight glycosuria. The number of injections varied from 1 to 6 and they were given every second or fifth day. Five patients recovered almost completely and in a short time—in eight to thirty days. The author strongly recommends it to the attention of pediatrists. Volkova (Pediatria, No. 6, 1913; Semaine médicale, September 10, 1913).

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The Ductless Glands.—The internal secretions exercise an apparently controlling influence on many of the organs, even to the extent of becoming responsible for the development of certain mental traits or personal characteristics which may make or mar the individual.

The hypophysis, as a whole, is a persistent organ and, therefore, must have throughout life a continued function. Extracts of the whole gland increase blood-pressure, cause uterine contraction, increase peristalsis, lower carbohydrate assimilation, and have a mydriatic effect. Used to excess, they cause emaciation, degeneration of the liver, and increased metabolism. Extirpation produces in animals a peculiar cachexia, reduced pulse rate and respiration, fibrillary tremors, and death, from apathy and

coma. The overgrowth of the pituitary sometimes occurring after typhoid fever, or its clinical evidences, is to be considered the result of toxins which stimulate its growth, as well as perhaps that of the epiphyseal bony borders, thus accounting for overgrowth after this fever. Something of the same kind is often seen after marriage, when the stimulation of the sexual glands seems to extend in a short time to the hypophysis.

Loss of the genital glands in youth leads to overgrowth of the truncal skeleton, while the cranium does not seem to grow so fast. The distribution of fat about the body is disturbed. Epiphyseal consolidation in those places where it naturally occurs least or last is delayed. This will account for the overgrowth, and it is not necessary to seek for its cause in the pituitary. The sexual glands, therefore, especially at puberty, exert a marked influence over the development of the bones during the last portion of adolescence. Roswell Park (New York Medical Journal, December 6, 1913).

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Preliminary Ligation of the Thyroid Arteries in Exophthalmic Goiter.—For the past two years or more the author has tied the inferior in preference to the superior thyroid arteries, for the following reason: The cosmetic effect is better; the wounds made for ligation of the inferior arteries are partly outside of the field of the lobectomy operations; as the inferior thyroid artery is usually larger than the superior, the effect of the ligation may be greater; the location of the inferior artery is less variable than that of the superior, which is subject to great changes because of the inconstant position of the superior pole. The ligation of the inferior thyroid artery is done as follows: A transverse incision from 4 to 4.5 cm. in length is made over the tendon of the omohyoid muscle precisely in the line of the Kocher collar incision as contemplated for the subsequent lobectomy. The fibers of the sternomastoid muscle are separated in the line of the common carotid artery at the level of the omohyoid tendon. The thyroid lobe is exposed behind the posterior fibers of the sternothyroid muscle and drawn inward by a retractor designed for this purpose. The common carotid is retracted outward by a similar though somewhat shorter instrument, and the layers of the fascia covering the inferior thyroid artery are divided at the level of the omohyoid tendon. Dissection is then carried out solely with two long, delicate, blunt dissectors, for the artery is sometimes at a great depth (greatest when Graves's disease has been engrafted on a colloid goiter), and the space is only large enough, as a rule, to admit one finger between the deeply concave retractors. A special aneurism needle is used for carrying the fine-silk ligatures around the artery. The wound is not drained. W. S. Halsted (Annals of Surgery, August, 1913).

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Operative Treatment of Thyroid Insufficiency.—Thyroid grafting, according to the author, has little, if any future. Clinical and experi-

mental facts are reported, however, which suggest that an operation on the thyroid, even when it is not enlarged, might have an influence on the functioning of the gland, diverting it into a more normal course. Such a method is worthy a trial in myxedema with goiter, in endemic cretinism, and infantile myxedema. If the thyroid is enlarged, part of it might be removed; if not, the isthmus might be severed, or both might be done in endemic cretinism, as in this condition the isthmic portion of the thyroid is generally the part enlarged. Poncet had success with "exothyropexy" in the case of a girl of 14 with typical myxedema. Her physical growth was scarcely that of a child of 8, and the mental development still lower. The thyroid was abnormally small. He lifted it out of its bed and kept it exposed for a time, covered only with gauze. The wound was allowed to heal up after about a month, and the child developed much better afterward, the mental condition materially improving. This was also observed in Neudorfer's case, a complete transformation in character and in mental and physical development following an operation on a goiter in a youth of 19, extremely backward in both body and mind; similar benefit had followed an operation on a brother for goiter. Cathcart had also reported subsidence of myxedema after partial thyroidectomy in a woman with a goiter. The author has observed a complete transformation after a partial operation on the thyroid gland in 2 dogs with pronounced cretinism and goiter. Von Jauregg (Wiener klinische Wochenschrift, September 25, 1913).

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Rachitis in the Offspring of Thyroidectomized Rabbits.—Report of the abnormalities of development observed in successive litters from a pair of rabbits both thyroidectomized shortly before the first copulation. Of the first litter of 8, 4 died rather suddenly about the twentieth day, with abdominal distention. The remainder, apparently normal up to the fifth week, then exhibited marked apathy and somnolence, muscular weakness, distention, and finally diarrhea. Three soon died, weighing only about as much as controls. The eighth rabbit showed temporary digestive disturbance, then grew normally. The second litter, born ten weeks later, showed a similar arrest of development, and but one survived. At autopsy the ductless glands were found practically normal. The osseous system, however, showed changes precisely corresponding with those of human rickets, including the rachitic rosary, marked lengthening of the distal, radial, ulnar, and tibial cartilages, scoliosis, curved sternum, rudimentary scapular spines, humeral curvature, contracted pelvis and cranium, with marked vascularity of the cranial bones, malformed teeth, and thickening of the epiphyses in general. The microscopic bony changes were also similar to those seen in human rickets. In a few cases there were added a slight rarefying osteitis or bone hyperplasia, and in the second litter changes suggesting a mild degree of achondroplasia. The parent animals exhibited no signs of myxedema, aberrant mediastinal thyroid tissue doubtless not having been removed.

The authors believe the changes observed in the offspring can be attributed mainly, if not wholly, to the parental thyroidectomy, and lay stress upon parental thyroid insufficiency—probably due to previous infections or intoxications—as a cause of rickets in human offspring. H. Claude and J. Rouillard (Presse médicale, March 21, 1914).

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Early Operation of Exophthalmic Goiter.—The author operated on 28 cases of exophthalmic goiter, in all but 6 of which the disease was severe. He insists on the necessity of educating general practitioners to realize the importance of an early operation in every case of exophthalmic goiter, as soon as the diagnosis is made. This puts an end to the excessive thyroid functioning before the resulting products have irreparably damaged the heart, kidneys, liver, lymphatic system, etc. The thyroid tissue is firmer and more easily operated on at this early stage, and the heart is in better condition. The results are prompt and permanent; especially noticeable is the rapid and complete subsidence of the exophthalmos. The author had 2 fatalities, both in long-standing cases. The patients were greatly frightened and both died before the operation proper was begun. He now refuses to operate when the patient is in such a fright. Those with vagotony seem to be in a more precarious condition than others, as also those at the height of intoxication —evident in the excitement and muscular weakness, while the more rapid pulse after slight exertion and a trace of dyspnea are signs of beginning exhaustion on the part of the heart. Under normal condition there is a difference of from 0.1° to 0.3° C. between the temperature in the axilla and rectum; when there is a difference of a whole degree chronic weakness of the heart is suggested. At the same time, extreme excitability seems to have a greater influence on the outcome than the state of the heart. E. Liek (Archiv für klinische Chirurgie, March 24, 1914).

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Exophthalmic Goiter and the Genital Sphere.—Menstruation was found normal in only 12 of 36 exophthalmic goiter patients; in 8 there was complete amenorrhea, which had persisted up to a year in the majority, and for twelve years in one woman of 47. In 8 women the menses had been much reduced; in 2 they had become excessive. Of the 36 women, 10 were virgins. Four were pregnant, and in 1, an iv-para of 36, the disease became much worse during the pregnancy. In another the disease seemed to have come on with the pregnancy, and in still another the heart disturbances became so serious that it seemed necessary to induce premature delivery. One woman, who had pronounced status lymphaticus and stenosis of the trachea, died during operative delivery. Only 1 of the 4 children seemed normally developed; 1 was prematurely delivered.

Disturbances in the genital sphere with exophthalmic goiter are too common to be merely casual. The onset of the Basedow disease, further is liable to coincide with puberty, pregnancy, or the menopause. In one

of the cases reported the first menstruation, at 18, occurred as the exophthalmic goiter first developed. In 2 cases the disease came on first during a pregnancy; similar cases have been reported by others. It seems probable that in certain cases the genital anomaly is the first to develop, and this starts up the exophthalmic goiter by its influence on the thyroid or on the sympathetic nervous system. The opposite is also known to occur. The exophthalmic goiter may thus be primarily thyrogenous, neurogenous, or ovariogenous, and treatment must be guided accordingly. Graff and Novak (Archiv für Gynäkologie, Bd. cii, Nu. 1, 1914).

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Dentition and Growth of Hair Under Control of Internal Secretions.—The author advocates systematic organ therapy during pregnancy in families which manifest a tendency to abnormal dentition and growth of hair. Tardy dentition should be regarded as a warning that the development of the body is not progressing as it should, and that the work of the internally secreting glands will have to be artificially supplemented to tide the patient along until normal conditions become installed. He does not attribute the trouble to any one gland, but to some disturbance in the functional balance of the whole ductless-gland system. Dentition was hastened and regulated by thyroid treatment in a boy of 14, backward in intelligence and physical growth. Numerous anomalies and delayed development were found in the teeth of a woman of 27 who had had myxedema since puberty. Three children in one family have numerous anomalies in dentition and growth of hair, and similar anomalies had been recorded in two preceding generations on the mother's side. Thyroid treatment of one of the children apparently had an important influence in stimulating and regulating the further growth of teeth, genitals, and hair. A. Josefson (Journal of the American Medical Association, from Hygeia, March, 1914).

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Diagnosis of Enlarged Thymus and the Symptomatology of Hyperthymatism.—One should be on the lookout for enlarged thymus in cases of asthma, persistent bronchitis, and laryngeal or tracheal stenosis. The enlarged thymus may be detected by the ordinary methods of physical diagnosis. Children with enlarged thymus present two fairly uniform sets of respiratory symptoms: Those due to pressure on the trachea, viz., cyanosis, slow, labored breathing, and supraclavicular and substernal retraction, and those presumably due to toxemia or hypersecretion of the thymus, viz., breathing of the asthmatic type, characterized by fairly easy inspiration and long, difficult expiration, accompanied by râles. Inasmuch as, in all cases treated, the symptoms disappear when the physical evidences of enlarged thymus disappear, there is a causal relationship between the enlarged thymus and the asthmatic symptoms, which are obviously not due to pressure, and therefore probably due to hypersecretion. Pressure symptoms and toxic symptoms may be com-

bined in the same case, but those of the toxic type are more constant. P. H. Sylvester (Boston Medical and Surgical Journal, April 2, 1914).

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Influence of the Thyroid on Pregnancy and Lactation.—That the thyroid gland, situated in the neck, should have any sympathy with sexual functions, if it was originally the gland concerned with digestion, is extremely unlikely, but, on the contrary, likely enough if it originated from a glandular organ in connection with the sexual structures of the paleostracan ancestors. There is clinical and experimental evidence of a connection of the thyroid with the sexual system of man and higher mammals through its secretion, in that a lack of thyroid secretion influences sexual activity adversely; that sexual activity, whether it be physiologic or pathologic, causes an overactivity of the thyroid, and that this hyperthyroidism constitutes an index to the toxemia of pregnancy to counteract which the thyroids raise their antitoxic protective power. There is abundant clinical evidence in support of the theory that what is termed a physiologic overactivity of the thyroid is a valuable safeguard against the toxemia of pregnancy. William M. Thompson (Surgery, Gynecology, and Obstetrics, August, 1913).

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Pineal Extract in Obstetrical Practice.—The author used this preparation in 54 cases. In 15 cases he did not reach his patients until the third stage of labor, when he witnessed an excellent effect in retained placenta and hemorrhage. The results were also excellent in the remaining 39 cases—not inferior to those obtained with hypophysis extracts, though in 11 cases the author was eventually compelled to use forceps.

In from three to five minutes after an injection of pineal gland extract, strong pains, with sufficient intermissions, ensue. These pains are more easily borne by the patient than those which have occurred before the injection. Pineal gland extract corrects functional disturbance of the uterus, and spurs the muscle tissue to the extent of its power. Injurious or unpleasant after-effects are probably rare. The use of pineal extract can, therefore, be recommended. Wolf (Deutsche medizinische Wochenschrift, August 7, 1913).

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The Thyroid and the Reproductive Function.—Enlargement of the thyroid was detected in 49 per cent. of 654 pregnant women examined. Only 21 of these women had noticed the enlargement before pregnancy. In 4 cases children of women with goiter were born with much enlarged thyroid. Albuminuria was found in 16.6 per cent. of 241 women with enlarged thyroid, and in 22.1 per cent. of 267 without. In 33 women with eclampsia, the thyroid was enlarged in 31 per cent. No evidence was found that the thyroid is liable to become enlarged at the menopause, or that there is any connection between myoma and goiter. Only 5 of the 112 women with uterine myoma examined had a goiter. Wertheim (Archiv für Gynäkologie, Bd. cii, Nu. 1, 1914).

Weight of Suprarenal Capsules in the Insane.—Weight of the adrenals estimated in 224 cases. Assuming their normal weight to be 15 Gm., it was found that in general paralysis, epilepsy, and dementia precox the average weight was increased, while in senile dementia, alcoholism, pellagra, mental confusion, and imbecility the weight of the adrenals was diminished, in the order stated. Thus the conditions in which the weight of the glands is greatest are those in which convulsions are common or, in the case of dementia precox, muscular contractions excessive (catatonia). The increased weight in these cases may represent a reaction of defense of the adrenals, these organs being charged, according to certain authors, with the destruction of toxins resulting from muscular activity. Parhon and Zugravu (Archives internationales de neurologie, November, 1913).

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Endocrine Tumors of the Appendix.—In cancer of the appendix there are two groups of cases: (1) Epithelioma of the ordinary intestinal cylindric celled type; (2) small adenomata or "carcinoid" growths, which staining with silver salts proves to be related to endocrine glandular structures of the walls of the small and large intestine, discovered by Schmidt and Ciaccio. The authors report 2 cases of the second type, of which they made a careful histologic study. Such tumors are certainly not confined to the appendix, and one may logically expect to meet with them wherever the endodermic epithelium of the alimentary tract contains argentaffin cells. Such tissue is homologous to the endocrine gland of the pancreas—the islands of Langerhans. A. Gosset and P. Masson (Presse médicale, March 28, 1914).

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An Operated Case of Tumor of the Hypophysis.—Stress laid on the many advantages which the transfrontal operation has over the transsphenoidal methods. The facility of exposure, the opportunity of determining with some degree of accuracy the extent of the tumor, the avoidance of such a contaminating influence as the secretion of the nasal mucosa, and the admirable cosmetic results—these and other minor considerations should be given credit when any comparison of methods is made. C. H. Frazier and J. H. Lloyd (Journal of the American Medical Association, November 1, 1913).

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Pathology of the Thymus.—The thymus may persist and become enlarged and yet its function be subnormal. The so-called status thymicolymphaticus is due, not to excessive thymus function, but to a constitutional abnormality expressed in disturbances of the whole internal secretory system, of which the enlargement of the thymus is only one of the manifestations. The hyperplastic thymus seems to have a toxic effect on the heart. In many cases of exophthalmic goiter enlargement of the thymus precedes the appearance of thyroid symptoms. C. Hart (Virchow's Archiv, Bd. ccxiv, Nu. 1, 1913).

Department on General Medicine

Cyclopedia of Current General Literature

Abderhalden Test in Mental Disease.—The author takes up the claims of Fauser as to the findings of the Abderhalden test in certain types of insanity, with special reference to dementia precox. After his own experience with the test in 106 cases he says, to summarize the results, that a sex-gland reaction may be obtained in nearly if not all cases of dementia precox at some stage or another, but that this action is not specific, as Fauser asserts. The reaction may also be obtained in other forms of insanity. Thus, either Fauser's rule has exceptions or the positive findings in manic-depressive insanity or paresis are due to errors of diagnosis or technique. The fact, however, remains that in dementia precox the positive reaction is the rule, while in the purely functional psychoses it is the exception. While one cannot, as yet, draw positive conclusions regarding the significance of the reaction in dementia precox, certain possibilities suggest themselves. One of these is that of a perverted function of the cells concerned in the production of the internal secretion of the sex glands. From the clinical side, the question suggests itself whether or not the reaction has any relation to the pathogenesis of dementia precox. Theoretically, this is perfectly possible. Granted that anti-sex-gland ferments do occur in the circulation in dementia precox, and that their presence is the outcome of the appearance in the circulation of an abnormal secretion or of abnormal cells, then one may also assume that digestion of these cells or cell-products will take place, and that all conditions are thus given for a chronic protein intoxication which might very well expend itself on the central nervous system. Should this be true, then one might also expect that the administration of sex gland to such patients would cause an aggravation of the patient's condition, while partial or entire castration, possibly combined with the transplantation of normal organs, might similarly be expected to have a beneficial influence. Thus, the problem is now open to investigation from many sides, and probably definite advances will soon be achieved. C. E. Simon (Journal of the American Medical Association, May 30, 1914).

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Appendicitis, Treatment of.—The author combats the policy of leaving the appendix unremoved in case of localized abscess which is apparently followed by the majority of surgeons. The reason usually given is that it is unsafe to separate the adhesions in searching for the appendix for fear of causing general peritonitis. The author himself followed this plan of incision and drainage until seven years ago. Since then he has operated in 501 cases of sharply localized appendicular abscess and removed the appendix in every instance, whether free in the abscess cavity or deeply buried by adhesions. The re-

sults are infinitely better than under the old plan of treatment. In the 501 cases 6 deaths occurred, 1 from cardiac thrombosis sixteen days after the operation; 2 from septicemia four and six days after operation; 1 from postoperative obstruction, twelve days after operation; 1 from secondary hemorrhage the third day, and 1 from unknown cause, no postoperative history being obtained. Not a death occurred from peritonitis. Since the adoption of the Fowler position and drainage of the peritoneal cavity by a large split rubber tube, inserted at the bottom of the rectovesical pouch, supplemented by saline proctoclysis, peritonitis has been robbed of its terrors. The thorough removal revealed many pus collections which would otherwise have been overlooked. The percentage of fecal fistulas was also small and the tendency to postoperative sepsis much less marked than when the appendix was allowed to remain. The procedure is not recommended to inexperienced operators, who need not be too eager to operate in acute suppurative processes within the abdomen, but with its general adoption the method will be found greatly preferable. Van Buren Knott (Journal of the American Medical Association, March 28, 1914).

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Argyrism from Collargol. — The author reports the case of a young woman, supposedly suffering from jaundice, which turned out to be argyrism following a course of collargol. A dose of 10 grains of hexamethylenamine, given for a coryza, caused a marked improvement in the patient's coloration. The suggestion is made that if there is found another unfortunate person with dark-bluish color from argyrism hexamethylenamine might be tried. A. M. Crispin (Journal of the American Medical Association, May 2, 1914).

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Bacterin Therapy in Skin Diseases. —While still ignorant concerning many fundamentals of bacterin therapy, one must admit that it is frequently of great service in certain diseases of the skin. Bacterins are very useful in acne, eczema, furunculosis, dermatitis herpetiformis, blastomycosis, ringworm, sycosis of the scalp, erysipelas, and seborrhea dermatitis. The colon bacterin may be of use on erythema multiforme and urticaria. In acne, eczema, furunculosis, and dermatitis herpetiformis it is allowable to start at once with stock bacterins; in other cutaneous disorders it is first necessary to identify the infecting organisms. Bacterins are only an aid and should never be used to the exclusion of all other remedies. The dosage and interval must be determined for each patient, care being exercised to avoid a "negative phase." Passive hyperemia should be induced after each injection. Bacterin ointments may be useful in some conditions. H. H. Hazen (Southern Medical Journal, March, 1914).

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Carbon Disulphide as a Therapeutic Agent.—If a small pledget of absorbent cotton be wet with carbon disulphide, placed on the skin, and at once covered with a silver quarter or dime, in a few seconds a sharp, burning sensation will be felt, which will increase momentarily till it becomes in half a minute as unbearable as the flame of a match. Four or five seconds after the coin and cotton are removed, however, so as to admit air to the skin, the

burning almost instantly ceases. Only a little redness and hyperemia of the surface remain for from a few minutes to half an hour, to show where the application has been made. No blistering follows, unless a very prolonged treatment—never necessary—is made. It is by reason of these qualities of very quick and very evanescent action that some peculiar therapeutic effects may be obtained with this agent. These are chiefly counterirritant, anodyne, and psychological.

Whenever an immediate counter-irritation is indicated, as in vomiting, the same effect will be produced by a quarter-minute's application over the epigastrium as by a strong mustard plaster after half an hour's use. The superficial capillaries may be distended almost instantly, to relieve stasis or congestion beneath any part of the skin surface. As an anodyne, carbon disulphide often promptly relieves neuralgias, headaches, and nearly all local pains. While the patient's interest is fixed and held by the new pain, the former one is forgotten. The stream of nervous energy that was overcrowding one set of neurons is at once diverted into new channels, allowing a period of rest for recuperation of the overirritable cells. Here one approaches the psychological effect induced by carbon disulphide, which is an important feature. To illustrate this, the author relates experiences of his own in which wry-neck, hysterical paralyses, etc., were relieved in a few minutes by application of carbon disulphide, together with well-directed suggestion. H. H. Seelye (New York Medical Journal, February 28, 1914).

* * *

Congenital Cardiac Lesions, Diagnosis and Prognosis of.—The author remarks on the great difficulty of making a diagnosis of the exact lesion in any individual case, and on the uncertainty of the symptoms of any particular anomaly. He attempts to give guides from an analysis of 34 cases which he has personally observed. Functional murmurs due to anemia are decidedly rare under 4 years of age, but when present are invariably systolic in rhythm, loudest at the base, never conducted to the back, and usually disappear in the recumbent posture. A history of cyanosis, dyspnea, and palpitation during the early months of life is in favor of a congenital lesion, and this possibility is enhanced if there are other deformities present. Instead of cyanosis, an important sign of congenital heart disease, there may be extreme pallor, as was noted in 9 of the author's 34 cases. The cyanosis, too, may only appear later—the *"forme tardive"* of the French. Cyanosis, when evidence of acquired heart disease, is a late phenomenon, and is usually accompanied by edema and serous effusion, both of which are conspicuous by their absence in congenital heart affections. Murmur in congenital disease is, as a rule, loud, audible over a wide area, and at no one place can it be said to be of maximum intensity, whereas in acquired mischief the opposite is the rule. It is usually systolic in rhythm, and may be diastolic as well, but never diastolic alone.

A systolic murmur as loud in the interscapular region, and especially on left side, as over the precordium points to a *patent ductus arteriosus;* in *pulmonic stenosis* the murmur may be well conducted behind, but it is never louder there than in front; in *pure*

pulmonic stenosis the second pulmonic sound is almost or wholly inaudible, but where this lesion is complicated by a *patent ductus arteriosus* the second sound may be accentuated.

In 9 of the author's 34 cases a *defect in the interventricular septum* was diagnosed, and verified *post mortem* in 3 of them. In all a loud, rough, and practically continuous murmur was audible, with its seat of maximum intensity about the middle of the sternum and not conducted into the vessels of the neck. The cardiac sounds could be recognized distinctly, and the second pulmonic sound was of normal volume. In the cases (2 in number) in which this lesion was present alone, cyanosis was absent, whereas in 1 case, where pulmonic stenosis existed in addition, cyanosis was evident.

A *patent foramen ovale* does not allow of a definite diagnosis.

In *pulmonic stenosis,* met with 15 times in the author's series, the symptoms usually considered characteristic—early cyanosis, systolic murmur, with seat of maximum intensity in the second left interspace, and weak or absent second pulmonic sound—are seldom found in practice, because this lesion is hardly ever present alone. When accompanied by a patent foramen ovale, persistence of the ductus Botalli, or by a defect in the interventricular septum, the second pulmonic sound is still present or even accentuated. With a persistent ductus arteriosus the murmur is rougher, conducted into the vessels of the neck, and the second pulmonic sound is accentuated; percussion may reveal in the second left interspace an area of dullness, which X-ray examination has demonstrated to be due to the dilated duct.

So far as *aortic stenosis* is concerned, those cases with narrowing of the isthmus are alone of clinical interest. In general, the symptoms of stenosis of the isthmus are identical with those of acquired aortic stenosis.

For the diagnosis of *persistent ductus arteriosus* the following combination of symptoms is of value: A rough systolic murmur (when an aneurismal dilatation of the ductus develops a diastolic element appears), with its seat of maximum intensity at the sternal end of the second left interspace, and at times louder in the left carotid than in the right. Gerhardt has drawn attention to a small patch of dullness situated in the second left interspace, and capping the cardiac dullness.

So far as prognosis is concerned, it can only be said that when dyspepsia is marked the outlook is grave, and that when X-ray examination does not reveal any enlargement of the heart it is unlikely that the defect is of any severity. M. Abelmann (Ergebnisse der innere Medizin und Kinderheilkunde, Band xii, Seite 143; Glasgow Medical Journal, May, 1914).

* * *

Constipation, Treatment of.—To cure and not merely palliate cases of constipation, one should be equipped with a good vibrator and knowledge of the best ways of applying it. Exercise, in the case of sedentary people, should be taken regularly for about half an hour morning and night, and, if it includes a rubbing of the whole body into a glow with a rough towel after sponging with cold or cool water, the cure will be the quicker

and surer, especially for persons with a poor circulation. The diet in stubborn cases must be as laxative as possible, including one or two glasses of water some time before breakfast, one at bedtime, and, besides, another at least three times during the day between meals. Fruit, fresh, dried, or stewed, should be taken as a part of nearly every meal, plenty of vegetables at one or two of them, and a bran muffin as well as a slice or two of toasted whole-wheat bread with butter at most of the meals. Liberal ingestion of olive oil on salads is often a valuable adjuvant.

Patients with an excess of hydrochloric acid can rarely be cured of constipation till this excess has been remedied. The opposite condition—deficient secretion of the acid of ferments—should also be corrected by supplying either these or the appropriate hormones. The bulky diet helpful in uncomplicated constipation must be modified or deferred in the more marked cases of gastric or intestinal dilatation until such faults have been measurably improved, though coarsely ground or finely cut agar-agar and purified petroleum preparations are frequently effective in spite of moderate dilatations or displacements, or even a kink in the small intestine. Agar-agar, added to one of the soups or purées and well stirred, can be made so palatable that comparatively large quantities can be eaten with the meals.

Kellogg points out that ordinary paraffin oil can be purified and made safe by agitation for a long time with water. Half a pint of paraffin oil or petroleum put in a 2-quart fruit jar with a quart of water and shaken for a couple of hours, then allowed to separate by standing, will be quite well relieved from the anthracin and other injurious toxics which it contains.

Both the agar and purified oil have proven extremely useful for stubborn cases in the author's hands. Boardman Reed (Southern California Practitioner, May, 1914).

* * *

Decapsulation of the Kidney in Bright's Disease.—Report of a case of chronic interstitial nephritis in uremic convulsions in which, as a last resource, this operation was performed. The fatty renal capsule being found and opened, the kidney was incised from pole to pole, the capsule proper or fibrous capsule stripped off as far back as the pelvis on each side, and then, instead of Edebohl's technique of cutting away the entire capsule and passing a strong silk ligature longitudinally through the cortex or substance of the organs, which in the author's estimation would only further damage an organ which is already in poor condition, the whole capsule was cut away with the exception of a narrow strip on each side of the pelvis, about ¾ inch wide, left for the purpose of forming a cradle; for the suspension of the kidney a strong ligature was passed twice through each tag, the ends being carried through the adjacent muscles.

The right kidney in this case was found of almost abnormal dimensions and the capsule thin and adherent. The left kidney was somewhat smaller, irregularly indurated, and sclerosed. The wound closed by primary intention and healed in twelve days on each side. On the fourth day after operation, albumin and casts had completely disappeared from the

urine and its specific gravity had materially improved. The patient was discharged, having made an uneventful recovery, and the urine examined regularly up to the time of writing (nearly a year later). The specific gravity improved steadily to 1020; there are no casts, albumin, or cells, and the patient has gained 34 pounds. D. J. Lynch (New York Medical Journal, June 6, 1914).

* * *

Diabetes, Disappearance of Sugar in, After Operations.—The disappearance of sugar in diabetics after certain pelvic operations is discussed by the author, who produces the reports of 4 published cases, and reports 2 of advanced prostatic disease with pronounced and severe diabetes in which all traces of sugar disappeared from the urine soon after operation. In both cases the absence of sugar was permanent. Spontaneous cure in diabetes has been known, according to Naunyn, but very rarely and only in traumatic or syphilitic diabetes of short duration. The wide distribution of the organs that may cause glycosuria in their pathologic condition might suggest that certain pathologic states of internal secretions of organs in the pelvis might disturb the glycogenetic function. Further speculation is hardly wise at present, but one inference is possible, viz., that diabetes must no longer be viewed as an absolute surgical barrier, at least for hysterectomy and prostatectomy, and that in some cases a possible cure may occur. E. H. Eising (Journal of the American Medical Association, April 18, 1914).

* * *

Elephantiasis, Surgical Treatment of.—A case of elephantiasis successfully operated on by Kondoleon's procedure, with continuous postoperative improvement, is reported by the author. The enlargement was confined to the right lower leg and foot. The circumference of the calf was 22 inches, above the ankle 18 inches, and of the foot 14 inches. The skin was hard, thick, and rough and the diagnosis of elephantiasis unmistakable. For four days previous to the operation the man was put to bed; each day the leg and foot were scrubbed in a strong mercuric chloride solution, bandaged tightly with a canton-flannel roller, and kept elevated on pillows. As a result of this, the leg was reduced in size about 2 inches. A long incision was then made through the skin on each side of the leg, extending from the knee to the ankle. Wide retraction of the integument was secured by dissecting it back freely from each edge of the incision. Going from above downward, the deep fascia to the width of three fingers was dissected off the muscles and cut away in one piece. Also, the same area of subcutaneous tissue was removed by splitting it off the skin. The muscles were laid bare and free hemorrhage occurred, requiring many ligatures. The skin was stitched back in position, dressings applied, and the leg bandaged without a splint. Auxiliary treatment consisted in the hypodermic administration of thiosinamine every three days over a period of two weeks. About three months later an intravenous injection of salvarsan was given empirically to combat any possible microbic or parasitic infection. The principle involved in the Kondoleon method is that by removal of the deep fascia there is brought about an anastomosis between the deep and

superficial lymph-spaces. The foot in this case is still enlarged and another operation is recommended, provided it can be performed without injury to the tendons. H. A. Royster (Journal of the American Medical Association, May 30, 1914). * * *

Formaldehyde.—Formaldehyde is rapidly absorbed from all parts of the gastrointestinal tract and lungs, and may be excreted again by them. It is rapidly oxidized in the body to formic acid and carbonates. There is also a small amount of a dialyzable compound formed in the blood, which is most probably hexamethylenamine, since the latter is found in the urine (bromine test). Small amounts of formaldehyde may pass through the body without causing apparent inflammation, while larger amounts always cause some. Recovery from severe inflammatory reactions may be rapid and apparently complete.

Formaldehyde depresses the heart by direct action. Its action on respiration is transient and apparently the result of irritation, though the quick oxidation would account for some of the increase. It causes a stimulation of the intestinal movements which in large doses is extreme.

The antiseptic action of formaldehyde is apparently due to fatigue, exhaustion, and a final firm combination with the drug. There is nothing to indicate that the drug has a field of usefulness in medicine other than for local use.

Morphine and ammonia are antidotes. Hugh McGuigan (Journal of the American Medical Association, March 28, 1914).

* * *

Gall-stones, X-rays in the Diagnosis of.—The authors began to find the shadows of gall-stones by accident during the course of bismuth examinations of the alimentary tract. They have now adopted the routine of examining the gall-bladder in every patient before giving the bismuth meal. Pure cholesterin stones do not interrupt the X-rays to any appreciable degree, so that shadows of them cannot be distinguished. But such stones are not common, or at least do not cause many chronic disturbances. When the gall-bladder is chronically inflamed the stones deposited have lamellæ of calcium and bile salts encrusted on the cholesterin core. The calcium ingredient is shown by the X-rays. In nearly every case of symptoms referable to gall-stones there is some calcium. The author's technique for demonstrating gall-stones is as follows: The patient lies upon a table, face down. The plate is placed under the right hypochondriac region. The maximum of definition is obtained with a very small diaphragm, 1½ inches in diameter, and a very small cylinder placed close to the back. It is preferable to use a fairly soft tube with a rapid exposure. In the gall-stone shadows often there is a central light area with peripheral calcium shadow. Occasionally irregular deposits of calcium corresponding to the lamellated structure may be made out. As a rule, the faceted outlines are clear, but a shadow suggesting a single mass may be due to closely packed gall-stones. Evidences of gall-bladder disease are usually shown at the subsequent bismuth examination in the form of signs of pericholecystitis. Gall-stones may be distinguished from renal calculi by taking plates with the patient lying first on

his abdomen and then on his back. Gall-stones are nearer to the anterior abdominal wall; therefore the anterior plate will show the shadows small and sharp, whereas the posterior will show them large and blurred. The reverse holds in renal calculi. Calcified mesenteric glands will be found to occupy different positions in different plates on manipulating the abdomen between the exposures. A calcified costal cartilage will be continuous with a rib. A. W. George and I. Gerber (Boston Medical and Surgical Journal, April 30, 1914).

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Head Injuries, Diagnosis and Treatment in.—Of 298 cases of head injuries reported on, 130 were fractures, 22 gunshot wounds, 15 cerebral concussions, and the remainder severe scalp wounds. Of the fractures, 72 involved the vault and 58 the base; the mortality in those of the vault was 64 per cent., in the basal fractures 56.9 per cent. Whenever, in fracture of the vault, a depression existed or there was a linear fracture in the neighborhood of a meningeal vessel with focal symptoms or coma, a decompression was done. In basal fractures the diagnosis was based upon the presence of blood in one of the cavities of the head, confirmed in most instances by spinal puncture, the latter being a routine procedure in every suspicious cerebral case. In basal fracture the treatment was expectant, except where there was also a depressed fracture of the vault. Spinal puncture, intelligently used, accomplished about as much as a decompression operation in these cases. The 15 cases of concussion all recovered. Of the 131 cases of scalp wound, 11 were admitted for the treatment of infection alone. Most of the remainder were partly under the influence of alcohol, and 10 of these developed active delirium tremens, 3 dying. Of the 14 cases of penetrating gunshot wounds, 12 died of tetanus.

Death in head injuries is believed by the author to be due to either surgical shock, meningoencephalitis, or bronchopneumonia. Spinal puncture is advised in all doubtful cases. It is never a dangerous procedure, except in brain tumors and in acute hydrocephalus with tuberculous involvement of the aqueduct of Sylvius. Withdrawal of 15 to 20 c.c. is sufficient. The control of the procedure by watching for a fall in the blood-pressure he has found of no value. The X-ray is of value only in the hand of an experienced operator. As a rule, at least 4 views of the cranium should be taken, and at times 6 to 10. A depression is rarely shown. Where it is thought advisable to attempt the removal of bullets, the X-ray plates and localization should not be over an hour old, as it is by no means uncommon for bullets rapidly to gravitate considerable distances. Probing of recent wounds for diagnostic purposes is dangerous and illusory. Instead, one should cut down on the skull and directly inspect. In acute traumatic cases no incision in the dura large enough to require suturing should be made for exploration. If there is increased tension or absence of pulsation small linear punctures should be made. If blood is then found the incision can be enlarged. W. J. Anderson (Surgery, Gynecology, and Obstetrics, April, 1914).

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Insolation, Treatment of.—Treatment of an attack of insolation is one

that combines refrigeration with elimination, both active enough to produce good effects, without embarrassing organs, such as the heart, which are already damaged. To accomplish the former, ice-cold packs or baths are given. For the latter, recourse is commonly had to stimulants, but this seems not to be best, except as a last resort. Stimulation of an already burdened organ can do little good. Hydrotherapeutic methods are more useful in insolation than drugs. Ice packs or iced baths have a great value, but should not be continued for more than a few minutes at a time and should be discontinued when the rectal temperature has reached 104° F. To replace the water lost to the body before the attack, and to increase elimination, saline infusion is indicated. If it is true that the oxygen content of the body is low and the acid content high, such solutions should be alkaline. Those recommended by Fischer are extremely efficacious, whether given by rectum or intravenously, in neutralizing acids and increasing elimination. The solution for rectal use should be as follows:—

℞ Sodium chloride, 30 Gm.
Sodium carbonate (crystallized), 20 Gm.
Water, 1000 c.c.

(If the crystallized sodium carbonate is not available and use must be made of the ordinary dried form of the salt, the amount indicated in the prescription given above should be divided by three.)

The time consumed in injecting a liter should not be less than one hour. For intravenous injection the following solution may be used:—

℞ Sodium chloride, 14 Gm.
Sodium carbonate (crystallized), 10 Gm.
Water, 1000 c.c.

This also should be given very slowly. (The carbonate cannot be boiled. The salt solution should, therefore, be made first and the crystals of carbonate then added.) The effect of these solutions upon the secretion of urine is remarkable, and, as a rule, they render unnecessary the use of digitalis. When this latter drug is used, it should be carefully administered and its effects watched. Strychnine is not advised in the active stage of the disease.

Such treatment will dispose of the immediate danger. The treatment is then symptomatic. Headache may be treated with acetanilide, acetphenetidin, or salicylates, with due caution. Sleeplessness may be controlled with bromides, trional, or other mild drugs.

In apyrexial heat exhaustion external hydrotherapeutic measures are uncalled for. The internal hydrotherapeutic methods should be very useful in these cases, however, and should be combined with friction, massage, and warm packs, together with sufficient internal stimulant medication. P. G. Woolley (New York Medical Journal, June 13, 1914).

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Lymphosarcoma, Coley's Fluid in. —The author reports the case of a man who had had a soft, rounded, fairly movable tumor beneath the left sternomastoid removed by operation, and in whom recurrence took place rapidly, the pathologic report showing that the growth was a lymphosarcoma. After partial removal recurrence again took place. Injection of Coley's fluid was begun, the initial dose being ½ minim (0.03 c.c.). This amount was gradually increased for three weeks, an injection being given

each day. In three weeks the amount given daily was 10 minims (0.6 c.c.), and this was continued for two more weeks. A well-marked reaction with inflammation followed each injection. Except for the first few days, all injections were made into the tumor itself. The latter stopped growing in a week, and then began to diminish in size, though this was masked to some extent by the local inflammation and thickening set up by the injections. After the injections were stopped the swelling subsided, and in a few days nothing could be felt of the tumor. A further course of injections was given for a month, 10 minims being administered on alternate days, and the patient was kept under observation for two months. A year later there was no sign of recurrence and the patient appeared to be in perfect health. Spencer (Journal of the Royal Army Medical Corps, January, 1914).

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Malaria, Treatment of.—Quinine is destructive to the asexual cycle of malarial plasmodia, but neither quinine nor any other known drug is known to have the slightest destructive effect on the sexual form of the parasite. The amount of quinine necessary to kill all asexual plasmodia in the circulating blood does not exceed in any case 30 grains during each twenty-four hours. Tertian plasmodia are nearly always killed by 20 grains per day and sometimes they may be killed by a much smaller quantity. Since 30 grains per day are not intolerable to almost any adult, this amount should be administered in all except perhaps very exceptional cases. It will destroy all asexual parasites in the blood during the given day, but does not reach the parasites lodged in the capillaries. These do not remain in the capillaries, however, longer than forty-eight hours. Therefore, if 30 grains of quinine are given during each of two full days it is likely that all asexual parasites will be killed. It is probably better to continue the quinine for one more day in order to catch any parasites that, by chance, may have escaped. One can make a dogmatic statement, then, that all asexual plasmodia of any species will be killed by 30 grains of quinine daily for three days.

Whenever unfavorable conditions appear the parasites develop the more resistant sexual form and reproduce sexually. These sexual forms are developed, however, only when the unfavorable influence is insufficient to be destructive. If one takes a patient with estivoautumnal malaria whose blood contains only asexual parasites and gives him a small amount of quinine (2 to 5 grains) daily, after a few days large numbers of crescents and ovoids, sexual forms, appear in the blood, and actually increase in number for some time. If, on the other hand, 30 grains are given daily for three days no sexual parasites develop. Thus, small doses of quinine should not be given in malaria; large doses are always indicated.

Most cases of malaria have in their blood more or less numerous sexual plasmodia, and, since the three days' quinine treatment does not destroy these, they remain to be reckoned with. There is some kind of reproduction of sexual parasites in the body of man (not now well understood) which takes place in seven and multiples of seven days. This gives

rise to the relapses that occur on the seventh, fourteenth, twenty-first, and sometimes twenty-eighth days. These sexual parasites must either reproduce or die of age. It has not been definitely determined how long they may live without reproducing, but it is probably between two and four weeks. Though neither quinine nor any other drug will kill the sexual parasites, a proper amount of quinine will kill their products of reproduction. All that is necessary, therefore, entirely to sterilize the blood of a patient is to give him 30 grains of quinine on every seventh day for four weeks or longer. Perhaps it would be better to give it for six weeks in order certainly to catch any parasites that may have escaped.

Dogmatically, one may say that every case of malaria (except moribund cases) will be cured and the blood sterilized of plasmodia by 30 grains of quinine daily for three days, followed by 30 grains on the same day of the week on which the last of the three days fell, for a period of six weeks.

It is a matter of choice as to the number of doses into which the daily 30 grains are to be divided. Probably there is no difference in the effect on the plasmodia whether it is given in one or more doses. For the comfort of the patient it is probably best given divided into 3 or 4 doses at appropriate intervals. As to the form of quinine to be employed, no more effectual form for administration by mouth is necessary than the ordinary sulphate. It is far superior to some of the other salts. Quinine is never absorbed from the stomach until it is in solution, but quinine in solution is a very bad dose and should never be given. The solution should be made in the stomach, either by exciting the flow of gastric juice or by administering a little hydrochloric acid.

Occasional cases of malaria are met with in which a very large proportion of the red cells are infected. Life may be considered as depending upon immediate introduction of quinine into the blood. It takes quinine two to eight hours to reach its maximum concentration in the blood when administered by mouth. In such instances one may resort to the intravenous route. A soluble salt, usually the hydrochloride, well diluted with salt solution, is to be selected. Ten grains at a dose will kill as many plasmodia as any larger dose. Twenty grains at a dose are not without danger to the patient, and much larger doses intravenously are likely to be destructive. There is no necessity to repeat the dose oftener than every eight hours, and the drug should be given intravenously only until it can be given by mouth. Quinine intravenously is indicated chiefly in comatose or cerebral malaria. In this form anemia of the brain and coma are produced by the large number of parasites lodged in the grain capillaries. They remain here many hours, some as long as thirty-six hours, and are entirely beyond the reach of quinine in the blood until they segment. The author believes that nitrites (amyl nitrite) would tend to dislodge parasites from the cerebral capillaries and thereby relieve, to some extent, comatose or cerebral malaria. Best results would probably be obtained if some quinine had been introduced into the blood previously in order to destroy the parasites when dislodged.

The slowness and uncertainty with

which quinine, when given hypodermically, is absorbed make it unreliable. If a patient must have quinine at once it should be given intravenously, or if he can wait a few hours it should be given by mouth.

Malarial hemoglobinuria does not require quinine during the attack, because the very condition which produces the hemolysis and consequent hemoglobinuria destroys the plasmodia. Quinine increases hemoglobinuria. After the acute attack the weekly administration of smaller doses of quinine always kills out the remaining sexual infection. C. C. Bass (Southern Medical Journal, May, 1914).

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Night-sweats, Treatment of.—The author's work was undertaken in order to determine the relative merits of 3 drugs in the control of night-sweats, viz., atropine, agaricin, and aromatic sulphuric acid. Eighty-one cases were studied, of which 51, or 62.9 per cent., had night-sweats. Eight cases were classed as incipient, 25 as moderately advanced, 15 as far advanced, and 3 not classified.

Forty-nine patients were questioned as to the time when the sweats occurred; in 5 the sweats were irregular in appearance and occurred either by day or by night; in 16 they occurred between bedtime and midnight, and in 28 between midnight and morning.

Five patients were treated with agaricin. The dosage was $\frac{1}{2}$ grain given at 8 P.M. and in a few cases repeated at midnight. Of the cases in this group, 1 was classed as moderately advanced and 4 as far advanced. In 1 moderately advanced case the sweating was controlled; in 1 far advanced case, not controlled.

Nine cases were given atropine in the dosage of $\frac{1}{120}$ grain at 8 P.M., and in 2 cases repeated at midnight. The results showed: Moderately advanced cases: Controlled 2; not controlled 1. Far advanced cases: Controlled 2; not controlled 4.

Fifteen cases were given aromatic sulphuric acid. The dosage was 10 drops at 8 P.M., repeated in 6 cases at midnight. The results were: Incipient cases: Controlled 1; not controlled 0. Moderately advanced: Controlled 4; not controlled 1. Far advanced cases: Controlled 4; not controlled 3. Unclassified cases: Controlled 1; not controlled 1.

The patients receiving agaricin were under treatment with this drug for an average of fifteen days each. The group receiving atropine were under treatment for an average of thirty-eight days, while those receiving aromatic sulphuric acid averaged but twenty days.

From the data at hand it would appear that the best results are obtained by the use of aromatic sulphuric acid. The drug is evidently of value and should be given a more extended trial. W. M. Adams (Albany Medical Annals, February, 1914).

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Novocaine as a Local Anesthetic.—The author reports the results obtained in the Mayo Clinic with the use of novocaine during the past year. The safe maximum dose of novocaine has been stated to be about 7 grains. The duration of the anesthesia when the drug is used without an adjuvant is fifteen minutes (Hertzler), but the action is more prolonged when epinephrin is added.

A ½ to 1 per cent. solution can be used in almost unlimited quantities

without fear of ill effects. This permits a wide infiltration of the operative field with liberal blocking off of the sensory nerve supply, which is not permissible with cocaine unless the latter be used in such large dilutions that the anesthesia is dependent to a considerable extent on the edema produced and not on the cocaine. Novocaine solution can be boiled without affecting its analgesic property.

The largest group in the Mayo Clinic series operated under novocaine is made up of cases in which the operation entails no exploration, is expected to be simple, and not prolonged. In this group belong the ligation of arteries, particularly of the thyroid, removal of small breast tumors, superficial cysts, lipomas, circumcision, paracentesis, external hemorrhoids, drainage of abscesses, excision of isolated glands and specimens of tissue for diagnosis, tonsillectomy in the adult, and various operations on the nose and throat.

Another group is composed of cases in which the general inhalation anesthesia is preferable, but might, for some reason, be deleterious to the patient. In this class are patients with recent acute conditions of the lungs, alcoholism, nephritis, myocarditis, etc., or any complication which renders ether not necessarily prohibitive, but rather inadvisable. Under these circumstances, hernia, hydrocele, varicocele, tuberculous epididymitis, varicose veins, and similar conditions are very satisfactorily operated on under local anesthesia. In operations on the thyroid where there is present an unstable nervous system and marked degenerative change in the heart and kidneys local anesthesia is also preferable, unless there is an apparently unreasonable degree of mental excitement.

The advantages of a combined anesthesia are particularly applicable in surgery of the thyroid when the condition of the patient indicates that the smaller the quantity of ether used the better. It is satisfactory in these cases to make the skin incision and divide between the muscles in the midline, if necessary cutting the sternohyoid and sternothyroid, under local anesthesia. An excellent exposure of the gland can thus be obtained painlessly. After beginning the actual extirpation of the gland, it is well to allow the patients to decide whether the pain is unbearable; if so, a few inhalations of ether will quiet them and enable the operator to remove the portion of thyroid necessary.

During the past year several abdominal operations have been performed under novocaine alone in the clinic, among them being appendectomies, gastrojejunostomies, gastrostomies, cholecystectomies, and the removal of ovarian cysts. A chronic appendix can be satisfactorily removed through a split-muscle incision if it is not markedly adherent. On the other hand, should old, firm adhesions be present and considerable traction necessary to free the appendix severe pain will be produced, which cannot be controlled by any method of injecting an anesthetic.

The methods found satisfactory in preparing and using novocaine were as follows: Enough of a ½ or 1 per cent. solution is made by dissolving the novocaine in sterile water. This solution is boiled for two or three minutes, and epinephrin is added. A

fresh mixture should be made for each operation.

In acute abscesses, superficial growths, and lipomas it is best to encircle the field of operation at the base with a substantial infiltration, then wait five or ten minutes before proceeding with the operation. In the majority of instances this gives absolute anesthesia. For ligation of the superior thyroid vessels, injection along the line of incision of about 15 c.c. of the solution, 10 cm. posterior to the outer limit of the proposed incision, to block off the superficial cervical nerves in that region, and another 5 or 10 c.c. deeply around the superior pole of the gland, usually gives a perfect anesthesia despite the fact that these patients are extremely irritable mentally. For thyroidectomies the same general plan is followed except that the deep injections around the gland when it is exposed are not employed. In herniotomy, after the inguinal canal is opened, the cord and sac should be infiltrated as high as possible. The separation of the sac can then be accomplished within a few minutes with very little pain, and a high removal done with surprising ease to the patient. In intra-abdominal work it is simple enough to cut through the abdominal wall to the peritoneum without producing pain, but anesthetizing the latter is difficult and oftentimes inefficient. In the more extensive types of operation morphine, $\frac{1}{6}$ grain, either alone or, in the case of the hyperplastic goiters, combined with $\frac{1}{200}$ grain of scopolamine, was given. D. C. Balfour (St. Paul Medical Journal, February, 1914).

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Potassium Mercuric Iodide Solution, Uses of.—The formula of a 1 per cent. solution of mercuric iodide in potassium iodide as used by the author is: Mercuric iodide, 1 Gm.; potassium iodide, 4 Gm.; distilled water, 100 c.c. This solution may be kept for months without change. The liquid is clear, of metallic taste, and irritating to the mucous membranes. If the local irritant effect is overcome by dilution, comparatively large amounts may be taken internally without producing severe symptoms. On a number of cases in which the drug was pushed, from 5 to 7 drops of a 1 per cent. solution was the limit of toleration, while from 15 to 18 drops of the same solution could be borne if well diluted.

Taken internally, the compound seems to have a marked effect on all catarrhal conditions of the mucous membranes, clearing up the common cold, apparently shortening the course of croup, and modifying acute infections of the nose, throat, and bronchi. This conclusion was reached after careful observation and repeated trial. Nearly all patients with catarrhal conditions remark that it gives them great benefit in freeing the sticky mucus. This is particularly true in acute bronchitis. In cases of gastritis and enteritis exhibiting much mucus the same effect was noted. The drug further acts as a mild stomachic if used in careful dosage.

Locally a beneficial effect was often noted in atrophic rhinitis. In a number of cases of acute frontal sinusitis marked relief was noted because of the free rhinorrhea set up. The free outpouring of thin mucus sweeps before it the thick secretions that have accumulated in the blind cavities. In syphilis, psoriasis, cryptogenic infections of the skin, and lupus the French have long been partial to

potassium mercuric iodide, using it both internally and as an ointment.

It is as an antiseptic, however, that the field for this compound is greatest, for in great dilutions its local effects and toxicity are insignificant, while its germicidal qualities remain high. A 1 per cent. solution has but slight irritant action, while a dilution of 1:80,000, or nearly one one-thousandth of 1 per cent., exhibits marked germicidal powers.

Cases of erysipelas, acne, and pustular infections of the skin of all varieties show remarkable results under its use. The purulent discharge in minor surgical cases, such as infected burns, old leg ulcers, and ragged wounds, is rapidly cleared up. Even when the affection is somewhat subcutaneous, as in felons and boils, when there is as yet no pointing or definite formation of pus, a wet dressing of 1 per cent. potassium mercuric iodide will usually reduce the course of the case and frequently abort it altogether.

For the sterilization of instruments the drug is excellent, except for its tendency to tarnish when left in contact too long. This can be easily overcome by the addition of a little sodium bicarbonate. Douglas Macfarlan (Journal of the American Medical Association, January 3, 1914).

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Prostatic Obstruction, High-frequency Spark in Treatment of.—The method discussed consists in the destruction of prostatic tissue by direct contact with the high-frequency spark, the current being applied by means of an insulated wire (usually No. 5, steel) introduced into the bladder through the cystoscope, in the same manner as originally employed by Beer in the destruction of vesical papillomata. Previous to the introduction of the cystoscope, the mucous membrane of the bladder and urethra is rendered anesthetic by the instillation of a 4 per cent. solution of novocaine in 1:16,000 adrenalin, which is allowed to remain in the bladder for one-half hour.

The wire is by means of the deflector held tightly against the tissue to be destroyed. As a rule, $\frac{1}{10}$-inch spark in the muffler is sufficient, and the spark should be tested before using the current in the bladder. The wire is usually allowed to lie in position until the bubbles cease to form. This usually requires about one minute, and is a long enough application for one area. The destruction of tissue for this length of time, with the current stated, extends about $\frac{1}{4}$ inch below the surface. As many applications should be made as the patient can take without causing severe pain or too deep destruction of tissue. The insulation burns off the wire, necessitating the withdrawal of the wire after each application, cutting it off flush with the insulation and reintroducing. The field fills with bubbles, requiring the injection of an ounce or more of fluid through the side cock, which clears the field at once. Bleeding is almost never seen, if manipulations are carefully executed.

The advantages are that the cause of the obstruction is removed under the eye without pain, reaction, infection, loss of function, hemorrhage, or incapacitating the patient. There is no ulcerated surface left; hence no cause for cicatrization.

The author's cases of small, fibrous prostates, median bar elevations, and

small lobe obstructions, without general enlargements, have been symptomatically cured by the measure. Cases of obstruction from a collar of prostatic nodules, without lateral lobes, were completely relieved where the tone of the bladder was fair, and improved even where the bladder wall was atonic. Cases of general adenoma in which open operation was contraindicated were greatly improved. H. G. Bugbee (Medical Record, February 14, 1914).

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Raw Surfaces in the Peritoneum, Management of.—It is essential that all raw surfaces in the peritoneum be covered or protected. The best method is to bring the edges together with a running suture, and, if time permits, to use a second suture to re-enforce and cover the first. The use of sutures is not applicable in over 50 per cent. of cases, and in these cases preference should be given to the peritoneal or omental grafts. In cases of general peritonitis associated with raw surfaces time is an important element and a finished technique unwise. In this class of cases warmed camphorated oil, 1 per cent., is indicated. The method of Richardson (covering with a leaflet of mesentery) should be used in cases with raw surfaces on the intestine, provided the intestine has a mesentery sufficiently long. Summer's method of using the sigmoid to cover raw surfaces in the pelvis is indicated in a small proportion of cases. All oozing surfaces should be touched with alcohol or the cautery to prevent infection. Sterile petrolatum has an inhibitory influence on adhesions, and if time does not permit of other measures it should be used. L. E. Burch (Southern Medical Journal, May, 1914).

Sarcoma of the Nasopharynx, Radium Treatment in.—The author reports the case of a male aged 22 who had first noticed a "blocking of the nose" four months before. There was no headache nor any pain in or around the nose. The soft palate was pushed forward into the mouth, and was almost vertical in position. Behind and reaching just below its free margin a large tumor could be seen which completely filled the nasopharynx, and the lower rounded border of the mass presented a grayish-white ulcerating surface, from which blood oozed freely upon manipulation. Digital examination showed that the tumor had a broad base, which occupied the whole posterior wall of the nasopharynx, the only free portions being its lower rounded surface and that which was in contact with the soft palate. A large, soft, painless, ill-defined glandular mass was present under the left ramus of the jaw. Two radium "emanation" capsules, each containing the equivalent of 40 mg. of radium bromide, were inserted through the anterior surface of the growth about 1 inch apart, and left *in situ* for twenty-four hours. The patient returned for examination in a week, when the whole mass had entirely disappeared. The appearance of the nasopharynx was as if a large adenoid mass had been removed a few days previously. Some weeks later the patient was feeling quite well; all signs of the growth had disappeared, and only a small gland could be detected under the left ramus of the jaw. Herbert Tilley (Journal of Laryngology, March, 1914).

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Tetanus Treated with Subcutaneous Injections of Phenol.—Report of a case of tetanus in a boy aged 11 in

which the original wound and scar were excised and pure phenol applied. At the same time subcutaneous injection of phenol (Bacelli's treatment) was started, 1 fluidounce of a 1 per cent. solution being given in the right axilla. The strength of the phenol solution was raised to 3 per cent. The groins and axilla were treated alternately. Chloroform was administered at each injection owing to the spasms produced by the needle-prick. The urine retained its normal color throughout. On the sixth day cutaneous erythema and slight edema were noticed at the sites of injections, and these were discontinued; but the spasms increased in violence and frequency, and the phenol solution was again given on the seventh day. On the thirteenth day the opisthotonos became very marked. By the twentieth day it had become excessive, although the spasms decreased both in violence and frequency. On the same day the opisthotonos suddenly began to diminish, and had entirely disappeared by the twenty-third day. The patient was able to open the mouth slightly about the sixteenth day. Improvement continued uneventfully during the next four weeks, and he was discharged cured on the fifty-sixth day. No antitetanic serum was administered. W. Graham Reynolds (Lancet, May 23, 1914).

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Urethritis, Abortive Treatment of.—Best results are obtained by the "sealing-up" method when the patient is seen within forty-eight hours after the beginning of the discharge. A 5 per cent. solution of argyrol is sealed within the urethra for six hours on each of five consecutive days, with the aid of non-contractible collodion. In carrying out this treatment, the patient empties his bladder, and lies on a couch. The penis is washed and wrapped in a sterile towel, after which 25 minims of 5 per cent. argyrol are injected into the urethra from a syringe holding exactly that amount. On withdrawing the syringe the surgeon compresses the lips of the meatus with his fingers, wipes the glans dry, and then applies collodion to the orifice with a camel's hair brush. The pressure must not be removed until the collodion is perfectly dry. The solution is retained in the canal for six hours, during which no liquids are to be taken by the patient. The collodion is then removed with cotton soaked in acetone. After the urethra has been emptied, the patient is required to drink a quart of water in order to flush the parts thoroughly, but next day he should prepare himself for the treatment by reducing his fluid ingesta to a minimum. E. G. Ballenger and O. M. Elder (Zeitschrift für Urologie, Band viii, Numer 1, 1914).

* * *

Varicella, Nervous Complications of.—There is good evidence that focal lesions of the central nervous system (encephalomyelitis) may occur in varicella. The authors report the following case of encephalitis: A boy aged 2½ years had a mild attack of varicella, in which the temperature did not exceed 100° F. On the fifth day he was found unable to stand or talk distinctly; there was some tremor of the limbs, head, and tongue. The tremor of the tongue passed off quickly, but four days later tremor was marked in the limbs. It was a slow, rhythmic movement which prevented him from standing without support. The movements of the limbs were slow and stiff. The child was irritable and emotional. The reflexes were normal. The tremor in a few days gradually diminished

until it was noticeable only during excitement and at the end of the month had practically disappeared. The child completely recovered, but was thought to be more excitable than previously. The authors considered that the symptoms were due to a destructive lesion of the cerebellorubrospinal system.

A similar case has been reported by Caccia. A boy aged 3 developed tremor on the fifth day of varicella. Its onset was preceded by two days' vomiting. He was unable to stand erect and speech was slow. Ankle clonus, increase of knee-jerk, and extensor plantar response were present on the right side. The cerebrospinal fluid was sterile, but contained 0.3 per cent. of albumin. After four weeks all the symptoms had disappeared. Caccia attributed them to encephalitis of left cerebral hemisphere.

Marfan has reported a case of varicella complicated by encephalitis affecting the oculomotor nuclei. Poliomyelitis and peripheral neuritis have been recorded as complications, but the evidence is not altogether satisfactory. The occasional association of varicella with herpes zoster has been described by several writers. Other nervous complications recorded are convulsions, intracranial complications of otitis media, optic neuritis, hemorrhagic pachymeningitis, and neuromyositis. Chorea has been noted to develop at the end of an attack of varicella, and tuberculous meningitis has been recorded as a sequel. Reginald Miller and James A. Davidson (British Journal of Children's Diseases, January, 1914; Lancet, March 14, 1914).

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Wassermann Reaction.—The technique of the test as used by the author is a modification of the original Wassermann and Noguchi technique. A human hemolytic system is employed instead of the sheep system of Wassermann. An alcoholic syphilitic antigen is used, and the serums always inactivated before being tested. Two cases of primary untreated syphilis showed such variations of the Wassermann as would have rendered the diagnosis doubtful had the spirochetes not been demonstrated in the lesions. In 4 secondary cases, likewise untreated, the author made it evident that the strength of the Wassermann may vary all the way from a double plus or positive reaction to a negative one in the same patient within a few days and with the presence of marked symptoms of syphilis. Four latent cases which had shown no symptoms for a year previous, though they gave a double-plus reaction before the titrations were commenced, showed like variations. The daily titration of untreated syphilitics thus revealed great variations, and showed that a negative or doubtful reaction is of no value for a negative diagnosis. As regards the cause of these variations, the author is inclined to the view that the complement-fixation reaction is often of a dual nature, there being a specific reaction between the substances extracted from the spirochetes and antibodies in the syphilitic serum and a non-specific reaction between lipoids present in the extract and lipotrophic substances in the serum. The fact must be recognized that in untreated cases of syphilis such variations may occur and that a single negative reaction is absolutely worthless in diagnosis. The patient should be subjected to repeated examinations when a negative reaction is obtained before being considered free from infection. C. F. Craig (Journal of the American Medical Association, April 18, 1914).

Clinical Summary

Practical hints from articles and abstracts that have appeared in the Monthly Cyclopedia and Medical Bulletin during the current year.

Acne. TREATMENT. Acne vulgaris in childhood or adolescence responds well to thyroid treatment. Thymus employed with advantage in cases with enlarged thyroid and rapid heart. *Morris.* Page 11

1. Internally: Equal parts of precipitated sulphur and milk-sugar; patient to swallow several times a day as much as is held on tip of a penknife. 2. Externally: Paint at night with a mixture of 10 parts of sulphur, 25 parts of alcohol, and 5 parts of glycerin. 3. Regulate bowels. 4. Meat, eggs, cheese, and sugar to be avoided. 5. Later, a ten- to fourteen- day course of Röntgen-ray exposures, one-third or one-fourth erythem doses being applied at 6 or 8 sittings, to a total of one and a half erythem doses. 6. Four or five weeks after this course, application of mercury quartz lamp for twenty or twenty-five minutes. The skin is to be carefully protected for eight or ten days and then gone over with the comedo extractor, any red spots left being treated with sulphur. *Kromayer.* 357

Acne Keloid. TREATMENT. In early cases small, isolated nodules may be excised; they do not recur if the incision is free of the circumscribed sclerotic mass constituting the nodule. *Adamson.* 357

Acromegaly. TREATMENT. Case of acromegaly in which thyroid treatment caused headache, dizziness, vomiting, and melancholia to disappear, while pituitary treatment always caused their return. *Salomon.* 30

Alopecia Areata. TREATMENT. (1) The B. P. unguentum hydrargyri iodidi rubri (diluted from 4 to 2 per cent.); (2) the unguentum hydrargyri oxidi rubri, with acetum cantharidis, ℥j to ℥j, and (3) equal parts of sodium chloride and petrolatum found seviceable in this condition. Pure phenol often gave good results. Causes of peripheral nervous irritation, such as carious teeth, errors of refraction, or aural defects, to be investigated. In severe cases pilocarpine nitrate, injected into the scalp every week or fortnight in doses of 1/10 to 1/6 grain, is sometimes beneficial. *Dore.* 358

Amenorrhea. TREATMENT. In amenorrhea, flooding, dysmenorrhea, etc., mammary extract treatment often proves corrective. *Berkeley.* 20

In amenorrhea, relative or absolute, ovarian extract considered best remedy by author. *Bandler.* 91

Anemia. TREATMENT. Joint administration of ovarian extract with iron and arsenic in anemias, including chlorosis, in females, recommended. *Bandler.* 91

Angina Pectoris. TREATMENT. Concussion at level of seventh cervical vertebræ, together with hypodermic injection of 1/10 grain (0.006 Gm.) of pilocarpine, to increase vagus tone, gives relief more promptly than does morphine. *Jarvis.* 160

Ankylostomiasis. TREATMENT. Betanaphthol in 30-grain (2 Gm.) doses given the first thing every morning is likely to prove more effectual than eucalyptus or thymol. Starvation of patient during such treatment is unnecessary; in bad cases it may be harmful. *Keith.* 165

Appendicitis. DIAGNOSIS. Following sign found valuable in diagnosis of appendicitis in small children, who show no sign of localizing appendicular pain: Upon light pressure over both iliac fossæ, the child executes slight movements of the right leg. If the pressure be increased, the right leg becomes rigid and irregular movements of the left leg are executed. Often the face suddenly flushes when pressure is made with the finger over the appendix. *Veau.* 477

Arthritis, Chronic. TREATMENT. Injections of phenol-camphor used with benefit. Must be made only into joint, never into spongy bone. Formula: Phenol, 30; camphor, 10; alcohol, 30. Only 0.5 or 0.25 c.c. is injected at one point, except in streptococcic processes, where 2 c.c. are necessary. *Pohl.* 235

Arthritis Deformans. TREATMENT. Gradual but permanent improvement noted in a number of cases after administration of thymus extract. Pain and swelling disappear and appetite returns. Nucleoproteid extract much preferable to crude gland. Treatment should cover several months, and small doses be continued for some time after apparent cure. *Berkeley.* 20

Bronchitis, Acute. TREATMENT. Inhalations of recently prepared tincture of iodine from wide-mouthed bottles found to cure bronchial catarrhs in four days. Inspirations —from 4 to 8 or more at each sitting—to be more or less deep according to severity of case. Inhalations to be repeated 5 or 7 times a day. If much mucus, expectoration to be assisted by usual remedies. In children iodine tincture may be dropped on pieces of cotton to be laid on pillow (over oilcloth) while patient sleeping. *Torri.* 303

Bronchopneumonia. TREATMENT. Hot baths, followed by brief cold affusion, in acute bronchitis, bronchiolitis, and bronchopneumonia in young children reduce fever, stimulate expectoration, deepen breathing,

exert soporific effect, improve appetite, stimulate elimination through skin, and seem to act specifically in shortening disease. Bath water is at 41° C. (105.8° F.), hot water being added as cooling occurs. Patient is bathed every three hours, up to 5 times a day. Baths particularly appropriate for feeble children who became chilled at periphery with internal temperature high. The weaker the child and higher the fever, the more frequently baths are given. Where the temperature not above 39° C. (102.2° F.), ten-minute bath is given 3 times a day. Hot bath is not contraindicated where temperature exceeds 40° C. (104° F.) in infants or very young children, though for older children warm baths may be substituted. At conclusion of each bath nurse elevates child from hot water so back of neck is exposed, and cold water is dashed once over neck, causing reflex gasp for breath. Child is next reimmersed momentarily in hot water and cold water poured on chest, after which he is dried, wrapped in warmed clothes, and placed in warmed bed. Baths to be continued once daily into convalescence if patient coughs. *Arneth.* Page 55

Burns. TREATMENT. (1) Hypodermic injection of morphine and atropine. (2) Immerse burned area in, or cover with light cloth moistened with, cold water to which has been added 1 teaspoonful of sodium bicarbonate or chloride per quart; continue until morphine effect manifest. (3) Spray or mop burn and surrounding surface with hydrogen dioxide, mop with dry gauze, apply gauze strips dipped in 2 per cent. picric acid solution in dilute alcohol, and cover with thin layer of cotton and adhesive strips or bandage. Allow dressing to remain till soiled, then reapply. (4) About third day, open blisters and mop away contents. (5) Where sloughing: Remove dead tissue as it loosens, cleanse surface with dioxide, dry, mop with picric solution, put on strips of rubber tissue previously kept in 1:1000 mercury bichloride solution, and cover with picric acid compress and cotton. *Plain.* 299

Cancer. DIAGNOSIS. Marked diminution of the area of cardiac dullness in the recumbent posture, as determined by percussion, found in 87 per cent. of 111 cancerous cases and only 16 per cent. of 107 noncancerous cases. This sign may be present in cancerous cases that show no wasting. When the sign is present, diagnosis of carcinoma should be rejected only after careful consideration. In some cases the sign has appeared early enough to enable successful resection to be carried out. *Gordon.* 234

Cancer, Gastric. DIAGNOSIS. Positive or negative diagnosis made by serial röntgenography in 616 cases. Of 97 cases operated on, diagnosis found absolutely correct in 94. Gastric cancer at any stage, or indurated gastric ulcer, can be detected by this method as accurately as renal calculi or bone fractures. *Cole.* 301

Cellulitis. TREATMENT. Packing infected arm from fingers to shoulders in hot mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection promptly. *Vreese.* 304

Colles's Fracture. TREATMENT. In reduction soon after the accident, without anesthesia, the most satisfactory method is a sudden, sharp jerk of the wrist administered by clasping one's fingers under the upper fragment, making pressure with the thumbs on the dorsum of the lower fragment, and abruptly pronating the hands. *Allen.* 419

Conjunctivitis. TREATMENT. Instillation of a 1 per cent. solution of ethyl hydrocupreine hydrochloride, allowed to remain one-half minute, recommended in pneumococcic conjunctivitis, dacryocystitis, and corneal ulceration. *Sattler.* 481

Constipation. TREATMENT. Constipation and rectal irritation in neurasthenics greatly benefited by the perineal and anal douche, hot as can be borne, followed by cold douche at 60° to 50° F.; stronger revulsive effects are obtainable with an alternate hot and cold application. *Pope.* 50

Corneal Ulcer. TREATMENT. 'Bathing part with 1 per cent. ethyl hydrocupreine solution for one-half minute every hour, six hours first day and twelve on next, found rapidly effectual in a case of ulcus serpens with hypopyon from chronic dacryocystitis. Sac expressed and conjunctiva cleansed with boric acid before each treatment with ethyl hydrocupreine, which was dropped on the ulcer. Practically specific against pneumococcic infections. *Wiener.* 168

Vioform in 2 to 4 per cent. ointment with petrolatum base, or in 1 or 2 per cent. strength in sterile oil, found useful in ulcers and injuries of cornea and sclera. *Dutoit.* 495

Coryza, Acute. TREATMENT. 1. Pill of morphine, ⅙ grain (0.01 Gm.), and a small dose of nitroglycerin. 2. In two hours, 10 grains (0.6 Gm.) of acetylsalicylic acid. 3. Hot bath. 4. On following morning, magnesium sulphate. 5. Locally, an ointment containing menthol, methyl salicylate, and oil of wintergreen in a lanoline base, to be sniffed back in nostril frequently, and followed by chloretone inhalant. 6. If discharge, feverishness, and periodic headache persist after a few days, patient should inhale steam from boiling water to which menthol and alcohol have been added. *Wilson.* 484

Delirium Tremens. TREATMENT. (1) Withdraw cerebrospinal fluid by lumbar puncture in amounts as large as possible—50 to 60 c.c. (2) Inject with syringe an equal amount of sterile 1 per cent. sodium bromide solution. Immediate improvement in delirium usually occurs, followed by temporary return and then permanent disappearance of delir-

ium. Relapse occasionally after a few days; usually controlled by repetition of injection. *Kramer.* Page 110

Dengue. TREATMENT. Three out of 7 cases were rapidly improved by administration of 30 drops of a 1:1000 solution of epinephrin by the mouth. Epinephrin is likely to prove useful in shortening convalescence in this disease and in mitigating the grave cases. *Khoury.* 329

Diabetes Insipidus. TREATMENT. Case in which injections of pituitrin caused marked, though but temporary, inprovement. *Farini.* 277

Diabetes Mellitus. DIAGNOSIS. Frommer's test recommended for detection of small amounts of acetone. Treat about 10 c.c. of urine with 1 Gm. of sodium hydroxide in substance and without waiting for it to dissolve; add 10 or 12 drops of a 10 per cent. solution of salicylaldehyde in absolute alcohol. Heat to 70° C. In the presence of acetone, marked purple-red color develops at zone of contact with alkali. This test indicates presence of 0.000001 Gm. of acetone. Urine must be diluted so that its specific gravity is about 1.01. *Muhlberg.* 232

TREATMENT. Therapeutic value of an "easy nitrogenous diet" pointed out, *i.e.,* of one consisting almost exclusively of milk and its derivatives, cereals, fruits, and vegetables. Such a diet partially takes off burden of nitrogenous metabolism from liver and tends to relieve its instability as regards glycogenic function, therefore often causing glycosuria to disappear. *Cornwall.* 110

Dry vegetable diet recommended for cases in a state of acidosis. Patient to take daily 10 ounces (300 Gm.) of dried legumins (peas, beans, lentils), 5 ounces (150 Gm.) of butter, 3 to 6 eggs, and 3 to 6 aleuronat or gluten rolls. Green legumins may also be given. Soy beans may be used. This diet to be followed at least 3 days at a time. The starch it contains is better utilized than that of other foods, glycosuria often being not higher than under a diet poor in carbohydrates. The diet also combats nitrogenous loss; somnolence and anorexia, where present, often disappear, and diaceturia diminishes. *Labbé.* 300

Diphtheria. TREATMENT. Iodine ointment used locally in 30 cases. With 2 cotton pledgets secretions and false membrane were first removed and the surface dried, and a third pledget, smeared with the ointment, was then rubbed on the affected surface and surrounding area. This was done every 3 hours, or in severe cases every 2 hours, until improvement occurred. Many cases cleared up within a few hours, becoming free of false membrane on the second or third day. *Thomas.* 364

Dysentery, Amebic. TREATMENT. Use of quinine advised as an adjuvant to ipecac in resistant cases of this affection. Successful results were thus obtained in cases that failed to react favorably to emetine. *Brooke.* 417

Dysentery, Bacillary. TREATMENT. In acute form: (1) Rest and warm covering; (2) only small amounts of food at a time; (3) calomel at the outset; (4) acid drinks; (5) enemata of saline or soda solution or of methylene blue. In chronic form: (1) Rest; (2) enemata of 1:500 or 1:1000 silver nitrate, 0.25 to 0.5 per cent. tannic acid, 1:500 or 1:1000 thymol, 1 to 2 per cent. resorcinol or creolin, or enemata of gum arabic mixed with bismuth subgallate or iodoform; (3) phenyl salicylate, tannigen, ichthyol, or calomel internally; (4) serum treatment, 10 c.c. in mild cases, 10 c.c. twice at six- to ten- hour interval in medium cases, and 40 to 60 c.c. in severe cases, not exceeding 20 c.c. at a time when serum used daily; (5) appendicostomy or cecostomy with irrigation in severe cases. *Bassler.* 111

Following treatment recommended: 1. Calomel, 5 grains (0.3 Gm.). 2. Barley water and boiled milk for a day or two. 3. Warm applications to abdomen. 4. Six hours after calomel, an injection into bowel of sodium salicylate, 13 Gm. (3¼ drams); water, 650 c.c. (1⅓ pints) at body temperature, with a small dose of Dover's powder. Injection to be repeated if necessary on alternate days. In children, about 90 Gm. (3 ounces) of the salicylate injection should be used. 5. In chronic dysentery, a 10 per cent. decoction of simaruba bark, 1 dram (4 Gm.) every three hours. *Lutsch.* 481

Dysmenorrhea. TREATMENT. Cocaine applied to tuberculum septi in nose and anterior portion of inferior turbinate on both sides, followed by application of trichloracetic acid over these spots, in 93 cases. Four applications made between periods. Cases with premenstrual headache, nausea, and colic at onset of flow—but without organic pelvic lesions—completely relieved. Of 81 cases sending subsequent reports, 48 had been cured and 14 improved. *Mayer.* 167

Atropine found very useful, except in cases with high blood-pressure, when pressure must be reduced and cause sought and removed. *Stolper.* 235

Following exercise recommended: The patient lies on her back with the knees flexed and one hand on adbomen, and is then directed to see how high she can raise the hand by lifting the adbominal wall, and then depress it by contracting the abdominal muscles. This is to be repeated 10 times, night and morning. Jerky movement is to be avoided. Pain was lessened in many cases and wholly removed in a large number by this method. *Mosher.* 481

Eclampsia, Puerperal. TREATMENT. Report of 2 cases in which pituitary extract injections—2 in each patient—yielded successful results, labor being brought on thereby. *Schlossberger.* 28

Eczema. TREATMENT. Both chronic and acute forms respond to thyroid treatment. Fat subjects and those with xerodermia respond best. *Morris.* Page 11

In mild acute cases paint on lesions an aqueous solution of picric acid several times daily; in more severe cases apply wet dressings of the acid, held by facial mask. Prompt and gratifying results. In subacute and chronic types cure hastened by beginning treatment with two or three days' application of picric acid solution. *Wilcox.* 176

Edema, Angioneurotic. TREATMENT. Pituitary and adrenal preparations found useful. *Morris.* 11

Epilepsy. TREATMENT. Four patients with severe essential epilepsy treated with subcutaneous injections of cerebrospinal fluid, taken for each from another epileptic. Considerable benefit. Dose of fluid injected, 3 to 5 c.c. biweekly or weekly. Improvement striking both as to severity and frequency of attacks. In some, petit mal took place of grand mal. Greatest improvement noticed especially if injected fluid was taken from other patients during recurrent attacks, no matter how slight the latter. *Gordon.* 235

Epistaxis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin brought early relief in 5 cases. *Citelli.* 279

Epithelioma. TREATMENT. Concentrated sunlight, focused on growth with ordinary magnifying glass, found effectual. Useful where X-rays and radium not available. Invariably successful in obstinate recurrent ulcerative patches on face or nose. Focus sunlight on sore for ten or fifteen minutes at a sitting. If scab present, concentrate rays till burning is felt, then lengthen focus to cover wider area. Induce burning again every few minutes. Treat every day or two till scab easily removed, then apply a little cocaine and after three or four minutes apply rays so as almost to cauterize base of ulcer. Alternate with milder applications for fifteen minutes. Under milder treatments thereafter, at longer intervals, cure usually complete in three to six weeks. *Seelye.* 166

Erysipelas. TREATMENT. In severe erysipelas a single small vaccine inoculation,—5 million,—preferably of autogenous vaccine, will usually cause a critical fall of temperature, and a second or third dose at about five days' intervals generally completes resolution. *Whitfield.* 56

In facial erysipelas: Have beside bed bowl of boric acid solution in which ice is placed. Keeping cloths frequently moistened with the solution continuously on face effectually relieves pain and burning. Where leg or arm involved: Wet dressings of boric acid or aluminum acetate. In migratory cases: Ichthyol may be applied or surfaces painted with picric acid solution. *Erdman.* 112

Pyramidon used in 20 cases with uniformly favorable results: Diaphoresis, antipyresis, sedation, fading of eruption, which ceases to spread, and improved general condition. Diuretic beverages also given. Locally, following ointment used: Phenolis, camphoræ pulveris, ana gr. xv (1 Gm.); adipis lanæ hydrosi, petrolati, ana ʒss (15 Gm.). *Satre.* 167

Discomfort and pain more rapidly relieved by picric acid solution than other agents, and edema disappears promptly. *Wilcox.* 176

Two facial cases treated by local applications of hepatic lipoid, rapid recovery following. *Tilmant.* 416

Erythema. TREATMENT. Epinephrin used in 3 cases of erythematous taches of the face ("red nose"). A 1:1000 solution was given internally in 5-minim (0.3 c.c.) doses in water 3 times daily half an hour before food, and the treatment continued during five to six months (with short intervals). The erythema almost entirely disappeared, and a year and a half after treatment it had not reappeared. No bad effect on the heart or blood-pressure was observed. *Rothmann.* 348

Felon. TREATMENT. Mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection in an unusually short time. *Freese.* 304

Fracture of External Malleolus. TREATMENT. Case of oblique fracture of fibula, involving malleolus, in which, great pain continuing after splinting, the malleolus was exposed by rectangular incision and, after detachment of external lateral ligament, entirely removed. The foot was splinted at a right angle to the leg. Pain ceased, and on the twelfth day the patient could stand on the foot without discomfort. Similar treatment recommended for all detached external malleoli. *Bland-Sutton.* 360

Fracture of Femoral Neck. TREATMENT. In adults the author recommends the addition of a side pull to the Buck extension. The side pull is exerted on the upper end of the thigh by means of a weight and pulley, the latter being placed opposite the crest of the ilium. It can be attached to the wall, a standard, or the side of the bed, and should be so adjusted that the pull is upward and outward at an angle of 45 degrees. The amount of weight at the foot of the bed should be sufficient to overcome the shortening, and the side weight about one-third of the foot weight. A well-padded splint of surgeon's felt, or sole leather, should be applied to the inner and under sides of the thigh, coming well up to the perineum, and fastened to the thigh by adhesive plaster encircling the limb. A band made of several layers of gauze or cheesecloth is convenient for the side pull. It should be fastened to the splint by adhesive plaster. By shortening the lower arm of this gauze the limb can be

rotated inward, thus avoiding eversion. *Moore.* Page 361

Fracture, Ununited. TREATMENT. Osmic acid, 0.02 Gm. in 1 per cent. solution, injected directly into focus in a case of ununited fracture of fibia and fibula, rebellious for six months. Injection repeated 3 times in two weeks. Patient discharged two weeks later. Stimulating action of the acid on periosteum and marrow confirmed in rabbit experiments. *Segrè.* 307

Fractures about the Elbow. TREATMENT. These cases should be started on an internal right angular splint. At the second or third dressing, while the fragments are still plastic and when the swelling has subsided, the wrist should be slung from the neck, obtaining the most acute flexion possible without too much pain. The flexion is increased at subsequent dressings for two or three weeks, when it is decreased again until all dressings are abandoned at the end of four or five weeks. *Allen.* 419

Furunculosis. TREATMENT. Where boil already soft: (1) Paint tincture of iodine freely over and around it; if several lesions close together, paint over entire area. (2) Place gauze pad with 10 per cent. ichthyol in petrolatum over the area, cover with a little cotton, and hold with bandage. (3) Next day, remove pus, wipe with benzine, and reapply iodine and ichthyol. (4) When pus entirely absorbed, discontinue iodine, but apply pure ichthyol. (5) To activate epithelial growth where necessary: Argenti nitratis, gr. xv (1 Gm.); balsami peruviani, gr. lxxv (5 Gm.); adipis lanæ hydrosi, ʒiiiss (100 Gm.).—For a furuncle not yet softened: (1) Apply iodine. (2) Thick coating of ichthyol, to be allowed to dry on or covered with a little absorbent cotton and gummed adhesive. (3) Next day, wipe off ichthyol with warm water or if possible wash area with soap and water, and reapply iodine and pure ichthyol. (4) Stop iodine on third or fourth day, continuing ichthyol till all inflammation subsided. Single layer of gauze, tissue, or cigarette paper may be applied when ichthyol has dried. *Berger.* 113

In furunculosis of the external auditory canal, cleanse canal of cerumen, discharge, polyps, etc., and insert a wick of cotton, or of gauze if there is a discharge. Ripe furuncles should first have been incised in their centers. The wick is to be kept saturated with alcohol, plain or with boric acid, and should be changed daily. If pain is severe, and no pus can be located, it is best to give a sedative and wait for pointing, rather than incise at random. *Lothrop.* 482

Gastric Atony, Acute. TREATMENT. Continuous lavage of stomach through nose recommended. Cocainize nose and work soft oiled tube with 8 to 11 mm. lumen down into stomach. Attach longer tube and carry to receptacle. Amounts up to 5 liters thus drain away. Keep outlet of tube at level of bed to prevent aspiration of mucous membrane. *Grosser.* 305

Gastroenteritis, Infantile. TREATMENT. *B. lactis bulgaricus* in tablet form administered in 55 cases, varying in severity from moderate degrees of infection—6 stools a day—to the most grave—20 or more. From 3 to 10 tablets a day were given to each infant, according to the gravity of the illness. Results: 43 gained in weight; 2 lost; 3 gained and later lost, and 7 showed no change. There were no deaths. The temperature came down to normal within one to three days, and in two or three days the stools became yellowish or brown, well formed, and free from curds, mucus, and blood. *Schwartz.* 364

General Paralysis. TREATMENT. Remissions may be prolonged by suitable doses of tuberculin ($\frac{1}{1000}$ to $\frac{1}{5000}$ mg. of tuberculin residue). *Jackson.* 236

Glaucoma. TREATMENT. In non-inflammatory glaucoma, when operation is consented to, Elliot's sclerocorneal trephining is by far the safest procedure and the most productive of results. In 29 cases thus treated there were no serious complications at operation in any case. Seven eyes with absolute glaucoma were preserved that formerly would have been removed. In 7 other eyes which were sightly a small degree of vision was gained by the operation. In the remaining 15 the eyes gained considerably in vision and usefulness. *Reber.* 362

Goiter. TREATMENT. Vaccines prepared from coliform bacilli of patient's own bowel administered in 8 cases of parenchymatous goiter, with disappearance of enlargement in one and diminution in the others. Initial dose usually 125 million, later increased, upon diminution of size of goiter, by 25 or 30 million weekly. Injections given weekly. *Langmead.* 23

Salicylates, creosote carbonate, menthol, thymol, etc., are helpful after the intestinal functions have been regulated. In nodular, cystic, colloid, fibrous, and intrathoracic goiters, iodine is seldom of value and sometimes dangerous. *Sajous.* 1

Colloidal silicon injections used with benefit in a case of simple goiter. Trial of this measure is advised in both simple and exophthalmic goiter before operation is resorted to. *Suard.* 345

Goiter, Exophthalmic. TREATMENT. Ligation of thyroid vessels and sometimes a portion of the gland is indicated (1) in patients with mild symptoms of hyperthyroidism; (2) in the large group having acute, severe exophthalmic goiters, and the chronic, very sick patients who, having exhausted all forms of treatment, are suffering from various secondary symptoms, and (3) in cases with marked pulsation and thrill of thyroid arteries associated with cardiac dilatation and loss of weight. Thyroidectomy later advisable, to prevent relapse to former

condition. Should trouble recur before a partial thyroidectomy is made, or a severe relapse after partial extirpation, inferior thyroid artery should be ligated and half of remaining lobe removed when improvement occurs. *Mayo.* Page 16

In early and mild cases in virgins, author begins treatment with corpus luteum, which is useful as antidote to thyroid intoxication. *Berkeley.* 20

Report of cases improved by administration, for several months, of 20 to 30 Gm. (5 to 8 drams) of quinine divided among twenty days in each month. *Gaultier.* 90

Next to operative treatment, where indicated, repose is important. The patients should be gotten out of their ordinary environment. A trip to an altitude of about 3600 feet often acts favorably, starting first at 1500 feet. The patient should be well nourished, on a carbohydrate-fat mixed diet. Galvanic stimulation of the neck is often useful; the anode being on the sternum and the cathode behind the angle of the jaw, a current of 1 or 2 milliampères should be slowly turned on for one to three minutes and then slowly turned off. *Bauer.* 411

Gonorrhea. TREATMENT. Iodine treatment gave excellent results in gonorrhea in the female: (1) Swab external genitals with a 3.5 per cent. solution of iodine in alcohol; (2) force a few drops of same solution in orifices of Skene's and vulvovaginal glands through blunt hypodermic needle; (3) with patient in Sims's position, insert Sims's speculum, swab vagina dry with cotton, and paint cervix with iodine solution; (4) swab posterior vaginal *cul-de-sac* and wall; (5) introduce narrow strip of gauze high up against posterior wall, and remove speculum; (6) give hexamethylenamine, 5 to 7½ grains (0.3 to 0.5 Gm.) four times daily in plenty of water. Where cervix and uterus chronically involved: (1) Paint cervix with iodine; (2) grasp anterior lip with volsellum and remove any stringy discharge; (3) insert small uterine sound if required; (4) introduce intrauterine syringe to fundus and instill 1 dram (4 c.c.) of iodine solution while withdrawing; (5) treat vagina as in acute cases. Repeat applications every third day in both acute and chronic forms. In all cases order hot douches of 4 to 6 quarts (liters) of hot saline two to four times daily, always followed by a 1-quart (liter) injection of 1:5000 permanganate or 1:250 picric acid. *Hofmann.* 48

Gonorrheal Vaginitis of Children. TREATMENT. Mixed autogenous vaccines of gonococcus and usually staphylococcus, streptococcus, diplococcus, colon bacillus, etc., used in 40 cases with uniformly good results. Average number of injections required for cure, 7. Initial dose, 25 to 50 million, then gradually increased. Interval between injections not less than five nor more than seven days. If after six weeks case still needs treatment, as shown by examination of discharges, a second vaccine should be made. *Wolff.* 49

Headache. TREATMENT. In headache or head pressure in nervous fatigue a fomentation applied for five or ten minutes twice, and followed by a cold compress, is effective. If headache is congestive, use hot foot bath, followed by ice-bag to nape of neck and cold compress to forehead. Sitz baths at 90° F., or cold foot baths, often relieve. *Pope.* 50

Hemoptysis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin nearly always brings relief in average cases. Where first injection fails, give a second, and later if necessary a third, the latter intramuscularly. *Citelli.* 279

Intravenous injections of 0.5 c.c. of pituitrin were followed almost at once by cessation of hemorrhage in 10 out of 12 cases. Where the hemorrhage recurred on succeeding days, the same prompt relief was obtained. *Rist.* 411

Hemorrhage, Cerebral. TREATMENT. Venesection used with good results and recommended in cases of apoplexy in full-blooded patients with blood-pressure of 200 mm. or more. Amount of blood let in author's cases, 12 to 48 ounces. Where vein at elbow not easily found in stout persons, there are usually varicose veins in legs which can be opened. *MacFarlane.* 121

Hemorrhage, Gastrointestinal. TREATMENT. Iodine tincture in small doses at short intervals found effective in checking hemorrhage and diarrhea in 6 cases of typhoid fever and in 4 of gastric ulcer. It also relieves abdominal tenderness in the latter condition. *Nottebaum.* 484

Hernia. TREATMENT. Inversion of hernia recommended in patients who take anesthetic poorly and maintain strong expiratory efforts, forcing viscera into sac under pressure. Primary union and cure of hernia in each of author's 7 cases thus dealt with. *Haynes.* 170

Herpes Labialis. TREATMENT. Picric acid solution causes rapid drying of lesion and tends to prevent extension. *Wilcox.* 176

Hodgkin's Disease. TREATMENT. Benzene, 5 minims (0.3 c.c.) three times daily at first, then increased to 10 minims (0.6 c.c.), caused marked regression of enlarged nodes, beginning two weeks after treatment begun, in a case previously treated unsuccessfully with X-rays. The 10-minim dose was continued for six weeks. *Lawson and Thomas.* 173

Hyperchlorhydria. TREATMENT. Cream diet considered useful. (See Ulcer, Gastric.) *Nichols.* 169

Following measures recommended: (1) Magnesium oxide, combined with sodium sulphate and belladonna in small amount. (2) All food to be well cooked and most carefully

minced. (3) Patient to take 2 or 3 meals at two-hour intervals in forenoon, but nothing after lunch until 7 P.M., when only porridge to be taken. (4) Fluid intake to be generally diminished and restricted to hours when stomach not filled with food. (5) In severe cases, or where gastroptosis: Rest in bed for two or three weeks. (6) Hot compresses twice daily for two hours; cold compresses at night. (7) If hyperacidity arises on basis of a catarrh: Rinse empty stomach in morning with 1:1000 salicylic acid or 1:500 silver nitrate solution. (8) Bowels to be carefully regulated. *Schmidt.* Page 302

Hyperthyroidism. TREATMENT. Injection into enlarged thyroid of 1 to 4 per cent. solutions of quinine and urea hydrochloride caused marked improvement in 3 cases. *Watson.* 265

Ileus. TREATMENT. Continuous lavage of stomach through nose recommended in duodenojejunal occlusion, postoperative bowel paralysis, ileus from adhesions, spasmodic contraction from peritonitic reflexes, and vicious circle after gastroenterostomy. (See Gastric Atony, Acute.) *Grosser.* 305

Impetigo. TREATMENT. In exceptional cases which do not yield to local measures, a few staphylococcic vaccine inoculations—usually, in fact, a single one—will cause prompt cure. *Whitfield.* 56

Infections, Local. TREATMENT. Following summary of serviceable measures present: *A.* Inflammations with slight serum exudation, but with redness, heat, swelling, pain, and loss of function: 1. Rest. 2. Elevation. 3. Hot, wet dressing.—*B.* Where much serum exudation, but slight tendency to necrosis: 1. Incision. 2. Place gauze in wound saturated with Chlumsky's solution. (Camphor, 60 parts; phenol, 30; alcohol, 10.) 3. Wet dressing; keep wet. 4. Remove gauze in twenty-four hours. 5. Insert rubber drain. 6. Apply wet dressing.—*C.* Where marked necrosis: 1. Incision. 2. Drainage. 3. Wet dressing. 4. After inflammation receded, Durante's solution. (Iodine, 1 part; potassium iodide, 10; guaiacol, 5; glycerin, to make 100.) 5. Dry dressing. *Hoag.* 307

Insanity. TREATMENT. Recovery in manic-depressive insanity may be hastened by stimulation of leucocytosis by injection of 1 c.c. of terebene subcutaneously in the flank. *Jackson.* 236

Insomnia. TREATMENT. In nervous fatigue (neurasthenia) this symptom is best met by cold pack or dripping-sheet at bedtime, or by the trunk compress, consisting of a coarse linen bandage wrung out of water at 65° F. and covered by several layers of same material to exclude air; it should be worn all night. Excellent also is the neutral bath at 94° to 96° F. for from twenty to sixty minutes. *Pope.* 50

Intertrigo. TREATMENT. Paint picric acid solution on surfaces and separate them with thin layers of absorbent cotton. In the more severely infected cases wet dressings of picric acid. Prompt results. *Wilcox.* 176

Intestinal Motor Inactivity. TREATMENT. Pituitary extract recommended. Injection of 3 c.c. in adults causes evacuation in 88 per cent. of cases in from six to twenty minutes. Usually constipation later recurs, but often a single injection will induce several stools on same day and keep bowels regular for a day or two after. The extract is valuable for prophylaxis and cure of postoperative intestinal paresis. Continued, it tones up intestine and also stimulates stomach motility. For lasting effect, inject ½ c.c. intramuscularly every day for a week, then 1 c.c. every three days for another week, and thereafter 1½ c.c. once weekly. *Houssay and Beruti.* 27

Intestinal Stasis, Postoperative. PROPHYLAXIS. Harmful effects of abrasion of visceral peritoneum in operations can be overcome by introducing 6 ounces (180 c.c.) of sterilized mineral oil in abdomen and sponging it over coils of intestine. *Burrows.* 52

Iodine Poisoning. TREATMENT. Calcium lactate internally found useful in 2 cases of iodine poisoning from a course of potassium iodide. *Von den Velden.* 418

Lumbago. TREATMENT. Salicyl compounds or a 10- or 20- grain (0.6 or 1.2 Gm.) dose of quinine at onset of condition useful. Rochelle salts, ½ to 1 dram (2 to 4 Gm.) every hour or two until urine alkaline and bowels freely moved, also valuable. "Walking the lumbago off" may succeed if free perspiration accompanies the exercise. Turkish bath in early stage safer and more effective. Later: Rest, dry cups locally, deep massage, faradic current, and, if salicylates fail, iodine, in vegetable protein combination. *Henry.* 175

Lupus Erythematosus. TREATMENT. Benefit followed use of adrenal substance in this condition. *Morris.* 11

Lupus Vulgaris. TREATMENT. Where Finsen light not available, old tuberculin is capable of great service. Begin cautiously; then make steep rise in dose as soon as one dose ceases to call forth reaction. *Whitfield.* 56

Gold and potassium cyanide injected intravenously in 12 cases. Single dose, 0.01 to 0.05 Gm. Results good. Course of 12 to 14 injections followed by interval of two to three weeks, after which another treatment given. Even in severe cases, therapeutic results better than with tuberculin and other measures. *Poór.* 236

Mammary Abscess. PROPHYLAXIS. Threatened mammary abscess underwent absorption in 2 or 3 cases soon after administration of pituitary extract. *White.* 283

Myasthenia Gravis. TREATMENT. Pituitary extract, combined with ovarian, found useful in 2 cases. *Lagane.* 85

Nasal Catarrh, Chronic. TREATMENT. Lavage with a solution of powdered boric acid, sodium bicarbonate, and sodium chloride in equal parts (with a little menthol added), 1 teaspoonful to a pint of tepid water, recommended. A ball-syringe should be gently used in carrying out the measure. Where local dryness is marked, the following oily spray is useful: Menthol, gr. v (0.3 Gm.); camphor, gr. ij (0.12 Gm.); oil of eucalyptus, ♏iij (0.2 c.c.), and oil of sweet almonds, enough to make f℥j (30 c.c.). *Wilson.*
Page 484

Obesity. TREATMENT. Colloidal hydroxide of palladium, suspended in olive oil and liquid paraffin in proportion of 25 mg. of palladium to 1 c.c., caused marked loss of weight, without untoward action except some local irritation, in 2 cases of obesity. Dose, 2 c.c. of suspension, injected under skin of abdomen. *Kauffmann.* 116

Osteomalacia. TREATMENT. Case in which excellent results obtained from epinephrin, injected in doses of 8 minims (0.5 c.c.) of 1:1000 solution, daily, in 2 series of 9 injections each. Patient finally discharged cured. *V. Salis.* 278

Ozena. TREATMENT. Use of sugar recommended. For first week or two surgeon should carry out treatment himself, and precede sugar by removal of crusts from nose, softening them if necessary with hydrogen dioxide or sodium bicarbonate solution. Patient to use nasal syringe once daily. After crust removal, massage mucosa with cotton-tipped probe; then nostrils may be packed with ribbon gauze soaked in simple syrup, to be removed in twelve hours. Repeat this treatment on alternate days. After a fortnight patient can insufflate powdered sugar himself. *Harry.* 175

Paralysis Agitans. TREATMENT. Good results from administration of thyroid and parathyroid preparations with calcium chloride. *Gauthier.* 86

Pericarditis, Adhesive. DIAGNOSIS. Retraction of the chest wall circumscribed along the left costal arch between the parasternal and anterior axillary lines, and with pulsation, is pathognomonic. To examine for retraction one should lay one hand on the lower part of the sternum and the other on the spine opposite; the patient then taking a deep breath, the chest is felt to grow narrower and a distinct systolic retraction perceived. Preference of edema for the upper part of the body, as well as the paradoxic engorgement of the neck veins during inspiration, are also characteristic. *Tornai.* 424

Perinephric Abscess. DIAGNOSIS. Pain referred to lower limb of same side found of considerable diagnostic value. There are both pain and tenderness, particularly marked along external cutaneous nerve just below anterior superior spine and on external aspect of thigh. *Belikov-Chtomitch.* 117

Phlebitis, Chronic. TREATMENT. Local alternate hot and cold submersions and spray advised. Two tubs or pails are used, one containing cold water and the other water at 110° F. The affected limb is first submerged in the hot water for thirty seconds, then in the cold for fifteen seconds. This alternation is gone through 10 times, ending with the cold-water submersion. The part is then gently rubbed until the skin is dry and red, showing proper reaction. Gentle stroke massage in the direction of the venous flow is then to be carried out for ten minutes, the skin dusted with talcum powder, and an elastic support applied. The spray method (spraying with sponges of hot and cold water or a nozzle-spray attachment), applied for the same length of time, is useful to treat the upper parts that cannot be submerged. *Foster.* 424

Placenta Previa. TREATMENT. In marginal variety, inject 30 minims (2 c.c.) of pituglandol and at once rupture membranes. In central variety, according to extent of dilatation, perform version or introduce metreurynter and give pituglandol. Metreurynter generally expelled spontaneously in one-half hour. Then perform version and give second dose of pituglandol. *Gall.* 280

Pleurisy. TREATMENT. Autoserotherapy recommended in all cases of serofibrinous pleurisy in which pyemic infection is absent. A positive cure may be expected in over 80 per cent. of cases. In large effusions causing severe dyspnea and pain one should aspirate 10 to 200 c.c. of fluid and, before withdrawing the needle entirely, reinject 2 to 3 c.c. under the skin. Immediate relief from symptoms and a more rapid absorption of the exudate will follow. The injections should be repeated every other day until decided improvement takes place. *Pfender.* 417

Use of calcium lactate internally in pleurisy is indicated only when the effusion constantly recurs after puncture. *Von den Velden.* 418

Pneumonia. TREATMENT. Ethyl hydrocupreine hydrochloride given internally in pneumococcic lung inflammation, with good results. Dose usually 0.5 Gm. (7½ grains) *t. i. d.*, daily amount not exceeding 1.5 Gm. (23 grains). In 9 cases no other medication was employed: in all of these temperature fell more rapidly, by crisis or lysis, than with other methods. No untoward after-effects. *Vetlesen.* 118

Vaccine treatment advised. First give polyvalent stock vaccine of pneumococcus and streptococcus, of each, 30 million, as soon as possible. Make sputum smears and cultures, blood-cultures in early cases, lung puncture in late ones, and prepare autogenous vaccine. If no definite response in twenty-four to forty-eight hours, repeat or preferably give autogenous vaccine. If still no response in thirty-six or forty-eight hours, double the dose. If there is re-

sponse, as shown by improved clinical symptoms and signs, increased well-being, etc., defer reinoculation three days, or until the first symptoms of retrogression in general condition or physical signs occur. Maintain the dosage or increase it every two or three days until the patient entirely well. Generally about three doses are necessary. Average mortality with vaccine treatment only 5 to 10 per cent. Convalescence shortened and danger of complications lessened. In severe cases also give 20 to 30 grains of sodium citrate every two or three hours. *Craig.* Page 238

Epinephrin, 8 minims (0.5 c.c.) of 1 : 1000 solution in 1 pint (500 c.c.) of saline solution subcutaneously, caused prompt improvement in a desperate case. *Lonhard.* 281

Camphor-injection treatment recommended. A 30 per cent. preparation of camphor in oil of sesame, sterilized in a boiling water bath, should be used. As soon after the initial chill as possible, 2½ fluidrams (10 c.c.) of the preparation per 100 pounds of body weight should be injected hypodermically every twelve hours except in bilateral pneumonia and in severe toxemia, when injections should be made every six to eight hours. The site of injection should be the outer thigh or abdomen. The injection should be made slowly and the oil gradually deposited below the subcutaneous fatty tissue and not into it. *Cruikshank.* 426

Poliomyelitis, Acute. Diagnosis. Preparalytic symptom: A peculiar, twitching, tremulous, or convulsive movement of certain groups of muscles, lasting from a few seconds to somewhat less than a minute. Usually affects part or whole of one or more limbs, face, or jaw, but sometimes whole body. Duration of spells short at first. Often accompanied by a cry similar to hydrocephalic, or by brief period of unconsciousness. *Colliver.* 177

Psoriasis. Treatment. Thyroid preparations found especially efficacious in psoriasis associated with adiposity. They should not be exhibited until eruption is fully developed. *Morris.* 11

Low nitrogen diet found to have very favorable influence upon psoriasis eruption, especially when extensive. Severe cases improve under such a diet almost to the point of disappearance of the eruption. *Schamberg, Kolmer, Ringer, and Raiziss.* 178

Application of picric acid solution brings immediate and constant relief from itching. *Wilcox.* 176

Puerperal Fever. Prophylaxis. Whenever irrigation of vagina with boiled water through speculum yields a yellowish fluid, one should irrigate once daily for at least ten days with a 1 : 200 solution of lactic acid. Morbidity thereby reduced from 28.6 to 7.6 per cent. Full baths to be avoided before delivery. *Zweifel.* 54

Treatment. Intravenous injections of distilled water given in 142 cases of puerperal fever. Of 62 patients with pyemia and septicemia, 42 were cured. In an hour or hour and a half after an injection there is usually a chill, with rise in temperature. By evening or the following morning temperature will have fallen to normal, sweating usually accompanying the drop. *Ilkewitsch.* 53

Puerperal Sepsis. Treatment. Fixation abscess recommended in this and other severe infectious states, including pneumonia, appendicitis, typhoid fever, etc., whenever condition seems to be taking a turn for the worse. Inject 2 c.c. of pure oil of turpentine under gluteal skin. When abscess forms, evacuate through small incision (do not drain) and apply Bier cups twice daily. Excellent results in 18 cases. *De Lostalot.* 168

Abstention from curettage in cases of sapremia advised. Instead, one should dilate cervix, using first a dressing forceps, then a small dilator, and lastly a large dilator. After this, strips of gauze should be soaked in a 50 per cent. dilution of tincture of iodine. One strip is to be introduced into the uterus with a uterine sound, left about a minute, and then replaced by another. As a rule, from 5 to 8 strips are thus used. When a drain is required, the last strip is left in the uterus, to be removed later in about eight hours. *Welton.* 487

In the septicemic form, local disinfection of the genital canal is the first measure requisite. If temperature does not subside, or rises again, intrauterine douching with the following solution is advised: Tincture of iodine 2 fluidrams (8 c.c.) ; 95 per cent. alcohol, 8 fluidounces (240 c.c.), and sterile water, enough to make 2 quarts (liters). Once daily is sufficient. If a sharp rise in temperature follows, local disinfection should cease. An easily digested, largely liquid diet is indicated. Enteroclysis and serum treatment are at times useful. Continual septic symptoms plus an abdominal mass, palpable above the symphysis or Poupart's ligament, call for laparotomy. *Hirst.* 490

Pyloric Spasm. Treatment. Atropine in a certain proportion of cases brings relief. The author found that epinephrin hypodermically procures complete and lasting relief in most instances. In 2 cases the palpable pyloric tumor could be felt to melt away under its influence. Prolonged gastric lavage, using water at 105° F., also has a happy effect in relieving spasmodic stomach conditions. *Stockton.* 307

Pyorrhea Alveolaris. Treatment. Sensitized vaccine against streptococcus, staphylococcus, pneumococcus, and bacillus of Friedländer used in a number of cases. After 2 injections, mechanical and dental treatment added. After 4 or 5 injections, teeth clean and firm, and organisms gone. Three or four supplementary injections given. No recurrence in six months. *Bertrand and Valadier.* 304

Rabies. TREATMENT. Potassium iodide in 2 per cent. solution, 1 tablespoonful or dessertspoonful at frequent intervals throughout course of preventive injections, recommended as adjuvant in treatment. In 3 cases of abortive rabies symptoms promptly disappeared after use of potassium iodide. Advocated especially in cases where infection has existed in latent condition for some time. *Koch.* Page 55

Rachitis. TREATMENT. Pituitary extract given to 16 young children with rickets, and effects compared with controls. After a few weeks of pituitary, the children were able to stand and began to walk; fontanelles began to close and growth of teeth was considerably accelerated. Osseous tenderness gradually diminished, weight was gained, and musculature became firmer. *Weiss.* 218

Retention of Urine, Postoperative. TREATMENT. Pituitary extract injected intramuscularly in 21 puerperal and 24 postoperative cases with excellent results. *Ebeler.* 91

Rheumatism, Acute. TREATMENT. Intravenous use of sodium salicylate resorted to in 12 cases, 130 injections in arm veins being given in all. A very fine, sharp needle should be used. The solution is made by dissolving 10 Gm. of C. P. crystalline sodium salicylate in 50 c.c. of distilled water freshly sterilized by boiling. Each cubic centimeter contains 3 grains (0.2 Gm.) of the salicylate. Usually the dose was 15 or 20 grains (1 or 1.25 Gm.) and injections were given at twelve- or eight- hour intervals over a period of three to six days. Occasionally, in robust men, 30 grains (2 Gm.) were given, and as much as 120 grains (8 Gm.) in the first twenty-four hours, without unpleasant effects. Relief of pain was prompter and more pronounced than from oral administration. The method is indicated in patients unable to retain the drug by mouth; those who show little or no response to the usual method; to start the treatment with a few intravenous injections where pain is intense, and in cases with threatening heart complications, or in severe rheumatic affections of the eye. *Conner.* 428

Ringworm. TREATMENT. Body ringworm more easily controlled by painting on picric acid solution than by usual antiseptic ointment. *Wilcox.* 176

Wash part with a strong solution of sodium bicarbonate, swab with a mixture of 1 part of ether to 2 parts of alcohol, dry, paint with a 2.5 per cent. tincture of iodine, and apply immediately an ethyl chloride spray until the skin gets china white. In twenty-four to forty-eight hours the patch of ringworm will have become quiescent. Next tiny spots should be looked for and similarly treated. In ringworm of the scalp 3 or 4 applications of iodine and spray are required, but on the face or smooth surfaces 1 application suffices. *Foley.* 429

Scarlet Fever. TREATMENT. Iodine ointment used locally in 19 cases (see Diphtheria). These cases were unusually free from local complications. *Thomas.* 364

Sciatica. TREATMENT. Eight cases treated by injections of 4 per cent. quinine and urea hydrochloride in salt solution into subcutaneous tissue over course of nerve. Fifty injections in all, without untoward results. Always decided relief after first injection and no further attack after third. Injections daily for 4 doses, then every other day until patient entirely relieved. Two cases of facial neuralgia also treated, with complete relief after second injection. *Cables.* 119

Scorbutus. TREATMENT. Calcium lactate, 45 grains (3 Gm.) a day, found a valuable measure. *Von den Velden.* 418

Skin-grafting. Following method of dressing skin-grafts just after their application described: Strips of gauze, 6 to 8 layers in thickness, are thoroughly impregnated and buttered with sterile 33⅓ per cent. bismuth paste (Beck's paste). These are laid over the grafts smoothly for 2 or more inches beyond the wound. No wrinkles or folds should remain. Over these is placed a layer of absorbent cotton, and the whole held firmly by a roller bandage. The first dressing should be done on the fifth day, great care being exercised in the removal of the primary dressing. A similar dressing is reapplied and subsequent dressings done every third or fourth day as required. At about the fifth dressing one can peel from each graft a thin film of dead cuticle, leaving a firm, pink, healthy graft in position. *Coerr.* 358

Spasmophilia in Children. TREATMENT. Combined treatment with phosphorized cod-liver oil and milk curds from which the whey had been removed by washing with water (thus removing all mineral salts) was employed in 12 cases. A cure was obtained in 9 cases within a week, twice at the end of the second, and once in the fourth week. There was loss of weight, but this was soon made up on return to full milk diet. *Bernheim-Karrer.* 368

Syphilis. DIAGNOSIS. Luetin test valuable as diagnostic measure in tertiary and latent stages of syphilis, indicating a state of hypersensitiveness to spirochetal proteins induced by a period of cessation of introduction of these proteins previous to the test. Provocative injection of salvarsan, followed by both Wassermann and luetin tests, suggested to ascertain whether treatment has been curative in a given case. *Foster.* 179

Diminution in the bone conduction of sound, with otherwise normal hearing, is one of the earliest signs of constitutional syphilis. A tuning fork is struck and placed on the patient's mastoid process. When he no longer hears it, it is placed upon the physician's mastoid. If it is still audible to him,

the test is positive, provided the patient's hearing was otherwise acute. The sign is positive also in brain tumors, hydrocephalus, epilepsy, and tetany. *Beck.* Page 491

TREATMENT. Epinephrin, 15 to 20 drops of 1:1000 solution in a little water by mouth, advised ten to fifteen minutes before injection of neosalvarsan, to prevent "nitritoid" symptoms, arising in some patients from the latter, *e.g.,* facial congestion, tingling in throat, nausea, and vomiting. *Galliot.* 212

Tonsillitis, Ulcerative. TREATMENT. After thoroughly washing surfaces and crypts, apply 10 per cent. silver nitrate solution over ulcerated surface and carry down into crypts as well. Then dust thymol iodide with powder blower over gland and throw it into diseased lacunæ. Where tonsils seat of recurring inflammation, but patient objects to removal, use electric cautery. Selecting 3 or 4 crypts at a time, apply 10 per cent. cocaine solution to interior of each with fine-pointed cotton applicator. When anesthesia sufficient, introduce curved electrode into each crypt and turn on sufficient current to produce a white heat before electrode removed. Patients thus treated are freed from further attacks. *Bishop.* 241

Tracheobronchial Glandular Enlargement. DIAGNOSIS. Percussion of thoracic vertebræ, especially those above level of inferior scapular angles, affords tonal changes of clinical value in this condition; these must always be correlated, however, with mural signs in the individual case. In comparison with other (neoplastic) mediastinal masses, tracheobronchial tumors affect vertebral percussion sound less, and oftener produce dullness than hyperresonance. *Da Costa, Jr.* 180

Trigger-finger. TREATMENT. Paint the part with iodine, insert a fine bistoury in the flexure crease, and, pressing the point down to the tendon, draw it along for ½ inch. Relief is instantaneous and final. A small pad of boric gauze may be applied to make pressure for two days. The tendon is easily located by thumb pressure at the crease. *Abbe.* 492

Tuberculosis. TREATMENT. Garlic, 1 fluidram (4 c.c.) of the expressed juice or 2 drops of the essential oil three times a day, recommended in all forms of tuberculosis. Externally, poultices of crushed garlic bulbs, 1 part, with 3 parts of lard, or garlic ointment (50 per cent. of the juice in petrolatum) are to be applied.

Mercury biniodide, 1/30 grain three times a day internally, and unguentum hydrargyri externally, give the best results next to garlic. In cases of severe toxemia, where more active elimination is necessary, the following treatments give best results: (1) Normal saline, 220 c.c., at 106° F.; also of value in hemorrhagic cases, intravenously. (2) Guaiacol, 32 drops in 220 c.c. of sterile water, at 106° F., intravenously. (3) Mixture of sodium salicylate, guaiacol, and glycerin, of each, 32 grains or drops in 220 c.c. of sterile water, at 106° F., intravenously. (4) A 2 per cent. aqueous solution of pure phenol (Bacelli's treatment), 1- to 5- c.c. doses hypodermically or by Murphy's drip in 10-c.c. doses; the kidneys must be watched. Cases of continued septic temperature, not improving from the above, should be treated surgically. For making the soil unfavorable for the tubercle bacillus, phosphorus, 1/1000 grain t. i. d., and Fowler's solution, 1 drop t. i. d., give the best results. *McDuffie.* 431

Tuberculosis, Articular. TREATMENT. X-rays found useful in bone and joint tuberculosis. Aluminum or thick leather shield to be used. Treatment not to be employed in children less than 5 years old, and in older children epiphyses should preferably be avoided. Best effects noted in cases with sinuses and secondary infection. Part exposed from all sides to an erythema-producing dose; three weeks then allowed to elapse before repetition. Joints healing under the rays show but little limitation of motion. Abscesses with skin about to yield should not be rayed, owing to danger of necrosis. *V. Schede.* 165

Tuberculosis, Laryngeal. TREATMENT. Scarlet red, 10 per cent. in a mixture of equal parts of sesame oil and petrolatum, applied twice daily in cases with laryngeal lesions, whether ulcerative or not. No unpleasant results. Prompt relief of pain in every case, tendency of ulcerations to heal, hoarseness improved, and, where only infiltrations and edema, swelling markedly less after a few weeks. *Hinman.* 306

Tuberculosis, Pulmonary. DIAGNOSIS. Contrast between resonance of air-containing tissue and deadness of the airless spot is striking when light percussion practised. If on increasing force of stroke dullness remains, one may conclude that there is an extensive area of airless tissue. A shorter apex on one side is of immense significance. In infiltrated apex a long, held inspiration gives a duller note on percussion than is found over healthy side; this is often of value in doubtful cases. Where history, symptomatology, and course of disease point to tuberculous infection, one may safely diagnosticate tuberculosis without any definite auscultatory signs. *Fishberg.* 54

The X-rays will demonstrate much more accurately the extent of involvement than any other diagnostic agent. In determining the operability of a surgical condition in a patient suffering also with pulmonary tuberculosis, or in giving a prognosis in a known case of pulmonary tuberculosis, radiographic examination is essential. *Moore.* 367

TREATMENT. Frequency of gastric atony and dilatation, with resulting digestive symp-

toms and secondary toxic manifestations (aches and pains in chest and right hypochondrium, morning depression, insomnia, hepatic weight, vertigo, chilliness an hour after meals, fleeting edema, etc.), in pulmonary tuberculosis pointed out. Treatment: (1) Support to stomach and abdomen by Rose belt of plaster or moleskin, followed, upon improvement, by supporting belt to be worn continuously and later in daytime only. (2) No liquids with meals or for two to two and one-half hours after. (3) Lunch to be light. (4) Recumbency, with attempt to sleep for one-half to one hour after each meal. (5) No alcohol or fresh bread. (6) Medicinal treatment: Tr. nucis vomicæ, acidi hydrochlorici dil., āā f℥ss (15 c.c.); glyceriti pepsini, f℥iss (45 c.c.); aq. menthæ pip., q. s. ad f℥iij (90 c.c.). Teaspoonful in ½ glassful of water after meals. If much flatulence, add chloroform water, 2 or 3 minims (0.13 or 0.2 c.c.) to the dose, until relieved. (7) Cold shower or sponge baths, with needle bath to abdomen, followed by brisk rub, each morning. (8) Where mucous passages and flatus: Turkish towels, wrung out in hot water, to be applied to abdomen for one-half hour after meals. (9) Thorough mastication of food and abstention from worrying at meals. (10) Fats to be avoided at first. *F. N. Robinson.* Page 95

Measures to overcome fever described: (1) Where prolonged fever drains on patient's strength, pyramidon is drug to be preferred—5 grains (0.3 Gm.) in cachet at night, or, if necessary, three times a day. In neurotics bromides sometimes efficacious. (2) Rest in recumbency to be insisted on until temperature does not rise above 99° in men or 99.2° in women, when patient may sit in chair for two hours, then recline on couch, in open air if possible. Exercise then gradually increased. (3) Where severe cough, sedative mixture tends to prevent fever from the exertion and autoinoculation. (4) Where rest and drugs fail, cautious use of tuberculin (T. R. or B. E.), beginning with only $\frac{1}{100000}$ mg., exerts antipyretic action, though often only for short periods. Tuberculin acts best in cases free from fever while at rest, but febrile when exercise taken. *Wethered.* 120

Value of auscultation at acromion process in apical tuberculosis emphasized; it amplifies all auscultatory signs over apices. Of 28 cases in first stage, all showed acromial breathing. *Magida.* 239

Guaiacol administration, beginning with 5 minims (0.3 c.c.) three times daily, increasing by 2 minims (0.12 c.c.) a week up to 12 or 15 minims (0.75 to 1 c.c.), and continuing the drug for four months or longer, yielded highly satisfactory results. The drug should be taken immediately before food. The following formula was used: Guaiacolis, f℥j (4 c.c.); alcoholis, syrupi limonis, āā f℥j (30 c.c.); spiritus chloroformi, f℥ij (8 c.c.); aquæ, q. s. ad f℥vj (180 c.c.). One-half ounce three times daily. *Mayberry.* 366

Typhoid Fever. Treatment. Venesection found to yield marked benefit in a case of typhoid fever with severe infection in toxemia. Removal of 6 to 14 ounces cannot do harm and may be productive of much good in such cases. *Rudolph.* 494

Ulcer, Gastric. Diagnosis. Following combinations practically assure a diagnosis of ulcer: (1) Tender point with occult blood. (2) Hypersecretion with tender point. (3) Hypersecretion with occult blood. (4) Tender point with repeated positive thread tests. (5) Tender point with hematemesis. (6) Hematemesis with hypersecretion. (7) Hypersecretion with positive thread tests. *Verbrycke.* 114

Treatment. Cream diet used with success in 26 cases. One quart (4 glasses) a day yields 1800 calories. To this may be added 600 c.c. of milk or 6 slices of bread or 5 tablespoonfuls of oatmeal gruel or 3 eggs. Cream causes inhibition of gastric secretion. If not tolerated in full strength, it may be diluted with equal or greater amount of milk. Ice-cream a useful variant. Some marked cases progressed to good recovery in two or three months under cream diet. Method adapted for bed or ambulant treatment. Also useful as prophylactic against recurrence of ulcer. *Nichols.* 169

Ulcers. Treatment. In indolent tuberculous ulcers, 1 or 2 doses of old tuberculin usually cause complete healing in a week or two. *Whitfield.* 56

Urticaria. Treatment. Pituitary and adrenal preparations found useful. *Morris.* 11

Vaccination. Tincture of iodine, applied to the vesicle as soon as possible after the latter has formed, and repeated two or three days later, either prevents pustule formation or so limits it that the several pustules formed do not coalesce. The vesicles soon dry up and form a small scab. In not one of 116 cases so treated was there secondary infection with pus-producing bacteria, whereas in those not so treated about 30 per cent. were secondarily infected. There is no interference with the immunizing process. The scab should be kept covered with sterile gauze for several weeks. In cases of secondary infection with pus formation best results are obtained by removing the scab and pus, painting the base with tincture of iodine, and, when dry, covering with bismuth subiodide powder. Superfluous granulation tissue should be treated with a stick of silver nitrate. *Albert and Alden.* 369

Vomiting. Treatment. In paroxysmal vomiting of chronic, recurrent character, where no organic disease of stomach is discoverable, adrenal gland treatment is frequently of value. *Berkeley.* 20

Vomiting of Pregnancy. Treatment. Apomorphine, $\frac{1}{36}$ grain (0.0018 Gm.) in a teaspoonful of water, found effectual in a

severe case; likewise in other cases of vomiting or nausea. *Field.* Page 182

Thyroidin in 1½-grain (0.1 Gm.) tabloids given in several cases, with complete curative effect. *Koreck.* 284

Brilliant results obtained in some cases by administration of thyroid preparations. *Walker.* 409

Vomiting, Postanesthetic. TREATMENT. When vomitus of hemorrhagic type, give 5 to 10 minims (0.3 to 0.6 c.c.) of 1:1000 epinephrin hydrochloride in a teaspoonful of water. Cessation of vomiting follows. *Keay.* 93

Whooping-cough. TREATMENT. Vaccine containing 20,000,000 dead *B. pertussis* per c.c. used in about 70 cases. Infants received ⅓ c.c. as initial dose and ⅔ c.c. four days later; others, ½ c.c. and 1 c.c. Prompt, uniformly good and often striking results obtained. In cases already having a bronchopneumonia as complication, a mixed vaccine should be used. *Davidson.* 118

Silver nitrate in 2 per cent. solution applied to throat in 95 early cases to prevent spread of infection downward from pharynx. Useful results in 84 instances. Mucus secretion prevented and coughing spells due to irritation by secretion minimized. Silver solution applied every day at first; later, and in older children throughout, on alternate days. *Ochsenius.* 182

Epinephrin, 3 minims (0.2 c.c.) of 1:1000 solution, given every four hours in case in a child 7 years old, ill six weeks. Paroxysms markedly reduced almost at once. Drug then continued 3 times a day for three weeks more. *Lord.* 280

Wounds. TREATMENT. Stream of air from ordinary electric fan or register found useful in drying and promoting healing in large wounds, obstinate leg ulcers, and discharging eczema. *Heisler.* 182

Mixture of saturated magnesium sulphate solution and glycerin in equal parts recommended for dressing infected wounds. *Freese.* 304

Following summary presented: *A. Incised wounds:* 1. Paint with iodine. 2. Shave dry. 3. Tie all bleeding points. 4. Remove foreign substances. 5. Suture all tendons and nerves. 6. Again apply iodine in and around wound. 7. Suture wound. 8. Apply dry sterile dressing.—*B. Lacerated wounds:* 1, 2, 3, 4, 5, same as in *A.* 6. Cut away all damaged tissue. 7. Again apply iodine. 8. Suture wound.—*C. Punctured wounds:* 1, 2, same as in *A.* 3. Enlarge opening for drainage. 4. Insert rubber drain. 5. Alcohol dressing. 6. Tetanus antitoxin.—*D. Gunshot or bullet wounds:* 1, 2, same as in *A.* 3. If much bleeding, enlarge opening and tie vessels. 4. If nerve injured, suture nerve. 5. Close wound. 6. Alcohol dressing. 7. Tetanus antitoxin. *Hoag.* 307

Book Reviews

LEITFADEN DER ERSTEN HILFE. Ein Samariterbuch von Dr. J. Lamberg. Chefarztstellvertreter der Wiener Freiwilligen Rettungsgesellschaft. Pp. 275, with 190 Text Illustrations, in Part Colored, and 1 Colored Plate. Berlin und Wien: Urban & Schwarzenberg. New York: Rebman Company, 1913.

This little book is the product of thirty years' experience in "first-aid" work, and is intended for the use of both physicians and laymen. After the opening section on the history of "first aid," it was thought advisable to insert about 50 pages on the anatomy and physiology of the human body, in order that the principles of first aid subsequently discussed might be the better understood by the laity. The "first-aid" directions given are for such conditions as epileptic and hysteric seizures, colic, asthma, alcoholic intoxication, sunstroke, asphyxia, poisoning by drugs and plants, and suddenly manifest insanity. The "first-aid" management of wounds of various kinds is then taken up, and next the methods of saving persons from drowning and asphyxiation by noxious gases, from death in burning buildings, and from electric currents. The terminal sections are on the means of transporting the sick and wounded, and the preparation of rooms for their reception. The work contains numerous original illustrations, and cannot fail to prove valuable in many ways.

PATHOLOGISCH-ANATOMISCHES PRAKTIKUM FÜR STUDIERENDE UND AERZTE. Von Prof. Dr. med. Richard Oestreich, Privatdozenten an der Universität und Prosektor des Königin Augusta-Hospitals zu Berlin. Pp. 304. Berlin und Wien: Urban & Schwarzenberg. New York: Rebman Company, 1913.

To cover adequately the whole of pathology in so small a work is, of course, an impossibility, and the author intends this book merely to be an auxiliary to systematic

didactic lectures on the subject. The work is practically a syllabus on pathology, much of it presenting a tabular arrangement of the text. A brief preliminary section is devoted to methods of pathologic investigation. After this is taken up the macroscopic pathology of the various morbid tissue states, including specific granulomata, and of the various individual organs of the body, followed, in turn, by the corresponding microscopic pathology, and the histologic diagnosis of stained preparations of various tissues and organs. The second half of the book is devoted to such pathologic states as syncope, asthenia, collapse, shock, dyspnea, asthma, convulsions, etc.; to morbid circulatory conditions; to inflammation in general; to disturbances of the nutritive processes, and to tumors, parasites, fever, and teratology. On the whole, the book is a good compend, and can be recommended to the student, though it should by no means be thought of as embodying all pathologic knowledge requisite even to the undergraduate.

Taschenbuch der Diagnostik und Therapie der Lungentuberkulose. Von Dr. Heinrich Gerhartz, Assistant am mediz.-poliklin. Institut der Universität Berlin. Pp. 200, with 48 Illustrations, partly in Colors, and 13 Plates. Berlin und Wien: Urban & Schwarzenberg. New York: Rebman Company, 1913.

In this concise little work are discussed, with especial attention to practical details, the various methods of diagnosis and treatment of pulmonary tuberculosis available to the general practitioner. Theoretical considerations are taken up only in so far as they are necessary for proper comprehension of the text. The work opens with discussions of the biologic methods of diagnosis, this being followed by sections on "prima vista diagnosis," lymphatic enlargements as an aid in diagnosis, palpation, percussion, auscultation, and differential diagnosis. An excellent, illustrated consideration of Röntgen diagnosis is provided, the sputum albumin test described, the clinical grouping of cases of tuberculosis discussed, and, finally, the diagnosis of the chief complications of lung tuberculosis and of the chronic tuberculous skin affections succinctly dealt with. The remainder of the book—about one-half—is largely devoted to treatment, which is divided into treatment at home and in sanatoriums. First are taken up physical methods, such as Kuhn's suction mask, followed by drug treatment, including the general use of various creosote and guaiacol combinations, the treatment of cough and vomiting, fever, night-sweats, hemoptysis, etc. Tuberculin treatment is comprehensively taken up, detailed information being given as to the dosage, preparation of solutions, the antipyretic use of tuberculin, and possible untoward effects. A valuable table in which are listed and defined the numerous different tuberculins so far used is provided. The author looks with some favor on artificial pneumothorax as a remedial measure, and describes adequately, with the added help of illustrations, its theory and practice. The terminal portion of the book contains considerable information on German resorts for tuberculous patients, climatic treatment, an index, and colored plates depicting the end-results in the v. Pirquet and Calmette tests, sputum stained for tubercle bacilli, a tuberculous pathologic lung specimen, and several X-ray plates of the chest.

The General Field

Conducted by A. G. CRANDALL

A Hazardous Occupation

Every now and then it becomes necessary for some hero to leap boldly into the raging waters and rescue some feminine in distress. With the exception perhaps of a few professional lifesavers at the seaside resorts, the same hero seldom acts in that capacity more than once. He realizes that it will require too much time to stay in training.

Towing a panic-stricken woman out of the surf requires not only a good deal of muscle, but more diplomacy.

A plucky young man on the Jersey Coast recently rescued a young lady after tremendous struggle, as a result of which the girl was able to go to her home, but the man had to go to the hospital for repairs.

Perhaps it is because of this difficulty that feminine lifesavers are reported to be scheduled for action at Coney Island. No mistaken ideas of chivalry toward the fair sex will hamper their movements.

* * *

Reassurance

Some easily frightened people have become excited over the dissemination of germs occasioned by having shoes shined by Pullman car porters who have not passed the eugenic test as to freedom from said germs. It is now stated that there are ingredients in the blacking used which do not favor the propagation of the disease germs.

This ought to be a great relief.

The apprehension experienced by a great number of people on the germ question is, in a great number of cases, more harmful than the germs themselves could possibly be. Statistics show that the internes and nurses in hospitals and sanitariums where contagious and infectious diseases are treated are no more subject to infection than they are in the hospitals where all such diseases are rigidly excluded.

A person who is apprehensive should give some competent physician the job of making an inventory of his physical assets, receiving treatment if necessary and otherwise dismissing the subject from mind.

It is unfortunate that physicians do not have more frequent opportunity to impress these facts upon the families under their charge.

* * *

Deplorable Baseness

The farmers of Wisconsin are reported to have formed a vile conspiracy and refused to ship milk to Milwaukee, because of certain hygienic requirements as to the manner in which the milk is produced.

Much indignation has been manifested over this restraint of trade, directly contrary to the benign teachings of the Interstate Commerce Commission.

This is undoubtedly due to a misunderstanding. Heretofore a farmer has supposed that it was his privilege to make such disposition of his dairy products as best suited his convenience and his finances. If he is not in

a position where he can comply with the health regulations of a large city, he naturally feels that he should utilize his milk in some other manner more consistent with his facilities and needs. Milk can be utilized in other ways with about the same degree of profit, if not more, as in shipping it in bulk for city consumption.

A prominent newspaper draws a comparison between the privileged farmer, who can withhold shipment of his milk to a city, and the large manufacturer, who is not allowed to boycott certain branches of the trade, all of which goes to show what absurd lines of argument may be expected from newspapers whose editorial policy is absolutely controlled.

The farmer will naturally continue to dispose of his products to the best advantage to himself; otherwise he will not be likely to stay in business very long.

* * *

Silence and Much of It

The president of an eastern railroad, having stated in a public speech that he considered that much of the alleged hard times now prevailing was due to extravagance in the use of automobiles, was promptly notified by a leading automobile manufacturer that he need expect no more shipments from his concern. Accordingly the railroad president proceeded to qualify his former statement, attributing hard times to a large number of extravagant habits, of which automobiling was only a small factor.

Thus is free speech handicapped at the present time.

About all a railway president can do now is to keep very quiet and exhibit as few opinions as possible. If he appears to express an idea as to the unions, and it is only logical to think that he should have some ideas on that subject, he is likely to hear of something not to his advantage, but very much the other way. Of course, he cannot make any reflections upon the traveling public, for they would travel by some other line. So for this reason the railway president is about the stillest man on the map at present.

How nice it must be to be a suffragette and be able to say what one thinks.

* * *

Exercise

Almost any therapeutic problem is a simple one compared with the prescription of an adequate amount of exercise.

It does not require a large outlay of judgment to reach the conclusion that bodily exercise carried to excess must be harmful. Owing to the difference in various mental temperaments coming before the physician, the successful prescription of exercise involves much restraint for one class and a good deal of encouragement for another. Even then the doctor must largely depend upon the patient's estimate of the real and accurate results achieved by the prescribed remedy.

A man accustomed to a sedentary life becomes alarmed about himself and consults a physician. When there is nothing much amiss, the doctor recommends exercise. Eager to secure all possible benefits, the patient pushes the exercise program to excess, and the last state of that man is worse than the first. This is a warning to the physician to be a little conservative about advising

that form of treatment. The next patient is, therefore, cautioned to proceed slowly, and, being indolent by nature, he takes all due advantage of the doctor's precaution and secures very little exercise at all.

There are a good many diet lists which are handed out by family doctors with nearly all the things one likes upon them carefully scratched out. It might not be a bad idea to have some exercise lists to be used in a similar manner, the probabilities being that the patient will not be nearly as much dissatisfied if a considerable number of the exercises indicated are prohibited.

The elderly English gentleman who precisely at such an hour walked exactly thirty minutes and then walked leisurely home again probably came as near the happy medium of this form of exercise as could be expected under average circumstances.

* * *

Making the Tobacco Habit Safe

A Paris physician says that he has discovered a method by which he can remove the nicotine from tobacco and make the tobacco habit absolutely harmless.

Various similar expedients have been devised by which the caffeine content of coffee could be eliminated, thus rendering it free from the harmful effects which it is supposed to exert upon certain people afflicted with an idiosyncrasy.

One of these products is about as likely to become popular as the other.

The pick-me-up habit is well-nigh universal, and whether the mental placidity which follows the use of tea, coffee, and tobacco compensates for certain physiological disadvantages associated with the use of these articles is a problem which up to date has apparently remained unsolved.

The simple life consists in the avoidance of all unwholesome excitements, of overstimulating foods and late hours; and yet the instance of the neurasthenic who could not sleep in her quiet, hygienic, country home, but could sleep in a room facing the noisiest thoroughfare of a crowded city, simply illustrates the perversity of human nature.

No wonder the medical literature of the world has assumed colossal proportions and the number of remedies of the world are like the sands upon the seashore.

* * *

Idle Wives

The well-known story writer, James Oppenheim, has recently discussed in one of his books the woman of wealth, whose children being cared for by competent governesses, and whose domestic menage being conducted with great skill by competent servants, has nothing to do. Naturally absolute idleness does not bring happiness, and the complications which result make up the story.

It is hard to imagine the woman with a family of children who need be idle. Only the possession of the normal maternal instinct is sufficient to provide such a woman with a great abundance of occupation.

The eccentricities of those women who seek to evade the responsibilities of motherhood for the attractions of a semipublic existence socially, or identified with some of the prevailing isms are, fortunately, not taken seriously by the great mass of the public.

Always a Menace

A revolver installed in a bureau drawer for protection against burglars seems to have a very strong propensity to go off at the wrong time. It usually happens to hit some friend of the family, sometimes by design, but usually by mistake.

Some very stringent laws on the carrying of concealed weapons have been enacted from time to time, but on the principle that every man's house is his castle all the States concede the right to keep the revolver in the house as a protection against intruders.

Far from being a protection under such circumstances, such revolvers seem to do at least five times as much harm as good, which would suggest greater restrictions upon the sale of these weapons for any purpose whatever.

Only a very few people have the coolness to employ a revolver wisely in an emergency. All others may be expected to exercise poor judgment in its use at the very time when recourse to a weapon might seem to be justified.

* * *

The Degeneration of Haiti

Very few citizens of this country have any conception of conditions which prevail in Haiti. Although this country is relatively a short distance from the Atlantic seaboard, it is a terra incognita to 99 per cent. of our population.

A century ago Haiti manifested, to a considerable extent, progress, but successive civil wars have taken away all civic incentive, so that the condition of the principal city, Port-au-Prince, as described by Rear-Admiral Chester, U. S. N., is as follows:—

"Port-au-Prince is picturesquely located at the foot of hills, where one may escape from the blistering and filthy streets to mountain resorts that would be popular if located in almost any country of the world. The city is well supplied with the most delicious mountain water, and if its 60,000 inhabitants used it as freely as do Americans it might be as clean as nature made it. As it is the city may hold the palm for being the most filthy, foul-smelling, and consequently fever-stricken city in the world. The gutters of the streets, which may be said to cover the whole roadbeds, are filled with stagnant waters and are used as cesspools by the people. But for the torrential rains, which pour down the mountain sides and carry off all the filth into the beautiful bay, even a Haitian could not live there. The water of the harbor is so bad that it cannot be used even for scrubbing the decks of the ships."

Undoubtedly, sooner or later, this place, politically, morally, and hygienically, will have to be cleaned up and it will be the thankless job of the United States to do it. Conditions in this island are but the logical results of the unstable system of the government. Under such conditions there can be no incentive for private or public improvement.

Diphtheria Antitoxin Mulford

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Notes and Comments

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NEUTRALITY A NARROW PATH.

Should the European war be continued for a considerable time it will be necessary for the people of this country to watch themselves very carefully or they will in some way unwittingly expose themselves to the charge of a breach of neutrality.

It is almost inevitable that a country accustomed to free speech to the extent which prevails in the United States should say or do something that will give offense to one or more of the combatants. Any exhibition of partisanship is almost sure to be noted and resented. On the other hand, if the people of the United States can keep their heads and assume an entirely impartial attitude, at least publicly, it would be tremendously appreciated abroad.

It should be borne in mind that news reports of the progress of the war are pretty likely to be misleading and inaccurate. It is, therefore, unwise in every sense of the word for people who through the good fortune of isolation from the scenes of war are in a position to mind their own business to nevertheless allow themselves to manifest partisan feeling over matters with which they fortunately have little concern.

If there was ever a time when it was incumbent upon talkative Americans to say nothing and saw wood, it is now. There is sure to be an adjustment following the clash of arms, and if this country has maintained a serene neutrality and refrained in every possible way from taking sides the European countries will be sure to appreciate it later on, which state of affairs will be of great advantage to this country. There may be apparently sufficient reasons why people should sympathize with one side, or the other, but after all little can be known this side of the water as to the real concrete merits of the dispute. Any opinion entertained, even in the inner consciousness, must be largely based upon hearsay evidence.

The New Jersey justice who fined a mixed company of Austrians and Russians $10 each for fighting in the street manifested strict neutrality—neutrality combined with thrift. Of course, however, it is possible to carry out thrift to an excess.

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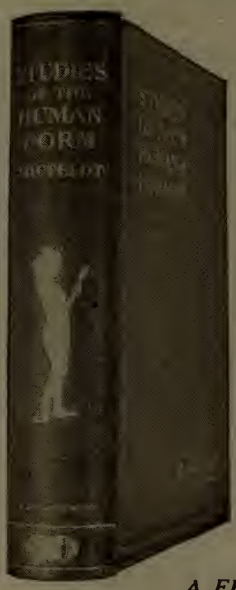

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HENRY P. de FOREST, Ph. B., M.S., M.D.
Author and Lecturer, Adjunct Professor of Obstetrics, New York Post-Graduate Medical School, New York City, N. Y.

I am of the opinion that the work will have a very ready sale to the professions to which it appeals, and am confident of the fact that it will be one of extreme practical use to both physicians and artists. I have secured a complete set of its illustrations, which I have mounted upon cards, and use in my lectures upon obstetrics to the students at the Post-Graduate Medical College in this city.

INTERSTATE MEDICAL JOURNAL
OTHO F. BALL, Managing Editor, St. Louis, Mo.

The text of Dr. Shufeldt's work offers much valuable information concerning the medical aspect of the problem.

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I have studied and read with great pleasure and care the book by Dr. R. W. Shufeldt. This work is magnificent in all respects. It will prove to be of the greatest use to men of science and to artists.

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Philadelphia parents have been advised not to allow their young children to frequent the moving picture shows because of the wide prevalence of whooping-cough and the great probability of its being spread in that way.

In view of the large extent to which such places are patronized, it seems to be taken for granted that nothing in the way of prophylaxis is to be expected of the proprietors themselves, the important function they perform apparently making them immune to any sense of responsibility

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JUSTUS H. COOLEY, M.D.

AUTO-INTOXICATION IN DISEASE;

Or, Self-Poisoning of the Individual.

By Prof. CH. BOUCHARD, Paris.

Translated, with an Original Appendix, by THOMAS OLIVER, M.A., M.D., Professor of Physiology in the University of Durham, Eng. Second Revised Edition. Crown Octavo, nearly 400 Pages. Extra Cloth, $2.00 net.

For years this book has been the recognized standard on the subject of auto-intoxication. Now that blood-pressure is receiving so close a scrutiny by all thorough physicians, the subject of auto-intoxication assumes a new importance.

Dr. Bouchard's book has had a very wide distribution. Physicians who do not have this work for reference, will find much in it that will be of assistance to them in numerous cases.

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as to the physical and, usually, the moral welfare of their patrons.

The movies are now, let us hope, in the zenith of their careers. Sometime it will dawn upon the health bureaus of the various cities that it is unwise to provide these clearing houses for disease and adequate ventilation will be made compulsory. Then will come the long-deferred house cleaning, and the inconsistency of an expensive system of medical inspection of schools and the present orgy of disease germs in the movies will be made clear.

AUTOGENOUS VACCINES IN PRURITUS.

The discouraging results so often noted in the treatment of pruritus will cause physicians to lend a willing ear to reports of successful attempts to demonstrate an infectious origin for this distressing symptom. Dr. Dwight H. Murray, of Syracuse, declares that he is convinced that pruritus is caused by an infection by or associated with one of the streptococci groups, 19 consecutive cases showing streptococci to be the only micro-organism constantly present. Pure cultures of these were developed and autogenous vaccines prepared, with which patients were injected in gradually increasing doses; the results were very satisfactory.

Further data regarding this field of investigation can be found in "A Treatise on Diseases of the Rectum and Anus," by A. B. Cooke, A.M., M.D., issued a few weeks ago; 620 royal octavo pages, profusely illustrated. Cloth, net, $5.50, F. A. Davis Company, Philadelphia.

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giving oxygen is a tonic in the best and truest sense of the word. Iron in some form is an ideal tonic, as it builds up the vital red cells of the blood and the hemoglobin which is their essential oxygen-carrying element. Of all forms of iron, none is quite as generally acceptable and readily tolerable and assimilable as Pepto-Mangan (Gude). It creates appetite, tones up the absorbents, builds the blood, and thus is a real tonic and reconstructive of high order. It is especially desirable because of its freedom from irritant properties, and because it never causes a constipated habit.

BANDITS IN YELLOWSTONE PARK.

It is natural to suppose that tourists traveling through the Rockies might be reasonably well supplied with funds. There might also be reasonable expectation that a party of 165 of these tourists would have among them quite a nice assortment of watches and jewelry. Having reached this conclusion, 2 enterprising hold-up men are reported to have held up the aforesaid party of 165 tourists and promptly taken over their cash and valuables.

Obviously there is some risk in carrying through such an enterprise. There might possibly be some cool-headed person among the 165 who would think of some expedient by which to interfere with the program of confiscation, but in the instance above recorded it seems that not one of the 165 objected.

Of course, it was extremely bad form to so rudely disturb the pleasures of the sightseeing party; but if it is possible for 2 cool-headed thieves to confiscate all the personal assets of 165 tourists without any interruption of the proceedings whatever, it is only to be expected that this new field of enterprise will be exploited widely.

Possibly the next party intercepted by these 2 enterprising thieves may contain among their party some bold spirit who will object; otherwise, there seems to be at present no other so enticing a business outlook.

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GUM CHEWING.

A cynical observer remarks that through their fondness for keeping the jaws constantly in motion when the American people are not talking they are chewing gum. Yet Dr. Arnold Lorand, of Carlsbad, in his book "Health and Longevity Through Rational Diet" (F. A. Davis Company, Philadelphia, cloth, $2.50), advocates the gum-chewing habit, which, although it may be unesthetic, he says is good for teeth, throat, and tonsils. Dr. Lorand mentions the curious fact that gum chewing probably originated with the Aztecs.

That gum chewing produces a certain effect

THE HABITUE IS OFTEN IMMUNE to the restraints of home and the family doctor. This should always suggest the Sanitarium.

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on the process of digestion is undoubtedly true. Considering the remarkable hold this habit now has upon the American people, it is singular that more study as to its probable effects on the public health has not been reported.

DIETETIC SINS.

The easiest way in rearing children involves a great many hardships upon the children. One of these easy ways is to allow children to eat whatever they clamor for. Sometimes by luck they will get along with no serious disturbance following such dietary indiscretion, but the chances are that they will pay up for this overdraft on their powers of resistance throughout their later years.

Dr. Fischer, in his "Diseases of Infancy and Childhood," 5th edition, $6.50, F. A. Davis Company, Publishers, Philadelphia, says that he found in two hospitals located in different sections of New York city that, out of 100 children between the ages of 2 and 6 living in tenements and apparently healthy, 80 were in the habit of receiving a taste of beer, or a little whisky with a drink of water. In some families the children received as much as a wineglass of beer with each meal. He regards such habits as a frequent cause of diarrhea. The parents of these children sadly need enlightenment in matters relating to diet. Just how they may be given these badly needed instructions is a larger problem. They do not take to the uplift propaganda very enthusiastically. Newspapers are doing a good deal to help this cause, but unfortunately few newspapers will publish anything in their pages antagonistic to advertisers of liquors and spirits.

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BRANDY IN PNEUMONIA.

Beverly Robinson, in the Medical Record, urges adherence to the old reliable remedies rather than the employment of newer ones the efficacy of which may be as yet not fully demonstrated. As an illustration he cites the use of French brandy in pneumonia, mentioning, as a notable example of its usefulness, the marked benefits resulting from its having been prescribed for the late Dr. E. G. Janeway, who recovered from a severe attack of pneumonia some years prior to his eventual demise.

The sustaining qualities of brandy in such cases have often been demonstrated, but difficulty is sometimes experienced in securing this product in the desired quality.

Naturally the physician who relies upon this form of spirits will wish to be very sure that the article in question is genuine and not the chemical product.

TYPHOID VACCINATION FOR VACATIONISTS.

The health department of New York city advises all people leaving for vacations to submit to typhoid vaccination, as many cases of typhoid have developed among people who have returned to the city in recent years after enjoying vacations at country resorts. The health department believes that the infection is picked up in the country and says it is going to try by this warning to relieve its health records of the scandal of so many typhoid cases in the autumn months.

Autumn Suggestions

With the termination of the summer vacation a large number of people seek the family doctor for a general overhauling. This is the time to get a copy of **LABORATORY DIAGNOSIS**, by **Francis Ashley Faught, M.D.**, Philadelphia. This book covers in a very satisfactory manner the topics implied by the title. It is crown octavo, 338 pages, bound in flexible cloth and sells at $2.00, net. Another book which may become useful at the beginning of the school year is **DISEASES OF THE EYE**, by **H. C. Parker, M.D.**, Indianapolis. This work covers a good deal of ground and is well adapted to the needs of the general practitioner. It is amply illustrated, contains 300 crown octavo pages and sells at $2.00 in flexible cloth.

A publication which is helpful at this or any other time is **PRACTICAL MASSAGE IN TWENTY LESSONS**, by **Prof. H. Nissen**, Harvard University, Boston. This work tells how massage can be prescribed safely and beneficially. It is within the comprehension of almost any intelligent person. There are 46 original engravings in the book, which is 12mo, and sells at $1.00, net, in cloth. Another useful publication for this stock-taking period is **PHYSICAL EXAMINATIONS OF INFANTS AND YOUNG CHILDREN**, by **T. W. Kilmer, M.D.** There is always a best way to do things. What Dr. Kilmer has figured out as the best method of making physical examinations of young children he has given to the profession in this book. There are 59 half-tone engravings, 12mo, and sells at $0.75, net.

When an anxious mother brings her daughter to the family doctor with a report that the child has not shown the usual benefits from the summer vacation, it is then the time to form a pretty accurate conclusion. Under such circumstances **CONSUMPTION: HOW TO PREVENT IT AND HOW TO LIVE WITH IT**, by **N. S. Davis, A.M., M.D.**, Chicago, may be of great help to the family in warding off that which might seem to be threatening. There are 172 12mo pages and bound in cloth. The price of the book is $1.00, net. A fine work which may be useful at such a time is **HEALTH AND LONGEVITY THROUGH RATIONAL DIET**, by **Dr. Arnold Lorand**, Carlsbad, Austria. This book has an introduction by **Victor C. Vaughan, M.D.**, and covers the whole ground of rational feeding from the standpoint of one who probably stands without a rival as an authority on this subject. There are 452 royal octavo pages. Bound in cloth the price is $2.50.

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(*Continued from page 38.*)

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